April 22, 2022

Via Email/ShareFile

Mr. Sameh Abdellatif
Hazardous Waste Programs Branch
US Environmental Protection Agency Region 2
290 Broadway, 22nd Floor
New York, New York 10007-1866

Re: First Quarter 2022 Progress Report
Hess Corporation – Former Port Reading Complex (HC-PR)
750 Cliff Road
Port Reading, Middlesex County, New Jersey
EPA ID No. NJD045445483
NJPDES Permit NJ0028878 & NJ0102709

Dear Mr. Abdellatif:

Enclosed please find the First Quarter 2022 Progress Report for the above referenced site. This report was prepared by Earth Systems, Inc. on behalf of Hess Corporation. As required by Module II (D) of the Hazardous and Solid Waste Amendments (HSWA) Permit number NJD045445483, the enclosed report presents activities associated with the Solid Waste Management Units (SWMUs), including the North Landfarm, South Landfarm, and No. 1 Landfarm, all of the Areas of Concern (AOCs), Historic Spills (HSs), and Remediation Management Units (RMUs) identified at the Former Port Reading Complex.

Should you have any questions or comments relating to this report, please call me at 732-739-6444, extension 2305. I can also be reached via e-mail at ablake@earthsys.net. If you have any questions relating to the project and schedule moving forward, you can also contact Mr. John Schenkewitz of Hess Corporation at 609-406-3969.

Sincerely,
Earth Systems, Inc.

Amy Blake
Senior Project Manager

cc: Ms. Julia Galayda – NJDEP (electronic copy)
Mr. Andrew Park – EPA (electronic copy)
Mr. John Schenkewitz – Hess Corporation (electronic copy)
Mr. Rick Ofsanko – Earth Systems, Inc. (electronic copy)
Mr. John Virgie – Earth Systems, Inc. (electronic copy)

FIRST QUARTER 2022 PROGRESS REPORT

HESS CORPORATION - FORMER PORT READING COMPLEX
NORTH LANDFARM, NO. 1 LANDFARM, and SOUTH LANDFARM
SOLID WASTE MANAGEMENT UNITS (SWMUs), AREAS OF CONCERN (AOCs),
HISTORIC SPILLS (HSs), AND COMBINED REMEDIATION MANAGEMENT UNITS

Hess Corporation – Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County New Jersey
EPA ID# NJD045445483

April 2022

Prepared for:

Hess Corporation
Trenton-Mercer Airport
601 Jack Stephan Way
West Trenton, New Jersey 08628

Prepared by:

1625 Highway 71
Belmar, New Jersey 07719

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FIGURES

TABLES

1.0 Introduction and Summary Table

Earth Systems, Inc. (Earth Systems) has been retained by Hess Corporation (Hess) to provide environmental consulting services for the Hess Corporation – Former Port Reading Complex (HC-PR) facility located at 750 Cliff Road in Port Reading (Woodbridge Township), Middlesex County, New Jersey. A United States Geological Survey (USGS) 7.5 minute series quadrangle map (Arthur Kill, New Jersey) depicting the site location, facility and associated land features is included as **Figure 1**. A Site Plan has been included as **Figure 2** and a tax map of the site is provided as **Figure 3.**

This report documents the investigative and groundwater sampling activities completed in the First Quarter 2022 (Q1 2022) at the Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), Historic Spills (HSs) and Remediation Management Units (RMUs). Investigative and remedial activities included groundwater gauging, groundwater monitoring, and Light Non-Aqueous Phase Liquid (LNAPL) monitoring.

SUMMARY OF ACTIONS

Location	Case Number/ Description	Description and Dates of Action
AOC 1	North Landfarm	Quarterly Groundwater Monitoring – January 2022
AOC 2	South Landfarm	Quarterly Groundwater Monitoring – January 2022
AOC 3	No. 1 Landfarm	Quarterly Groundwater Monitoring / Leachate Sampling – January 2022
AOC 10	Truck Loading Rack	Monthly Groundwater Gauging Events, LNAPL Monitoring & Recovery (Passive & Active) – Conducted as Needed
AOC 14a	TM Monitoring Wells	Monthly Groundwater Gauging Events
AOC 103	Fire Pits / Fire Training Area	Monthly Groundwater Gauging Events, Groundwater Monitoring – February 2022, Remedial Investigation Activities
TRMU	Tankfield Remediation Management Unit	Monthly Groundwater Gauging Events
SRMU	Southern Remediation Management Unit	Monthly Groundwater Gauging Events
Tankfields	Industrial Site Recovery Act (ISRA)	Remedial Investigation Activities
Marine Loading Dock Area	ISRA	Remedial Investigation Activities

2.0 ISRA and Regulatory Requirements Update

A Preliminary Assessment Report (PAR) was submitted to the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) on October 9, 2015. A total of 117 AOCs were identified in the PAR (**Figure 4.1 through 4.5**). Earth Systems concluded that, of the total number of identified AOCs at the site, 62 AOCs required further investigation. The Site Investigation Report (SIR) was submitted to the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA) on November 7, 2015. The NJDEP provided several comment letters on the SIR. The SIR was approved by the NJDEP and USEPA on August 24, 2021. The following table lists the dates of the comment letters and responses:

NJDEP Comment Letter Date	Response to Comment (RTC) Date
August 10, 2017	**December 20, 2017**
June 9, 2020	**July 31, 2020**
December 6, 2018 (Ann Charles NJDEP)	**October 19, 2020**
December 6, 2018 (Jill Monroe NJDEP)	**October 19, 2020**
November 17, 2020	**February 17, 2021**

The SIR comments will be addressed in the Site or AOC specific Remedial Investigation Workplan / Remedial Investigation Report (RIW/RIR) report(s).

RIWs summarizing proposed remedial investigation activities for selected priority AOCs were initially submitted in 2016. Several supplemental RIWs were also submitted in 2021. As discussed during the 2021 Q3 Quarterly meeting, “At Risk” investigation activities began in October 2021 and are currently ongoing. Please note that “At Risk” work refers to investigation activities that are proposed in a RIW that is submitted to the NJDEP and EPA for review. If the NJDEP and EPA confirm that the RIW 90-day review timeframe cannot be met, the proposed investigation activities may be conducted “At Risk” once the allotted review timeframe concludes. At the completion of all RI activities (once delineation is complete), a final RIR will be submitted that will document all investigation data and observations.

The following is a summary of submittals for all priority AOCs and AOC groupings, which have been identified by the NJDEP and USEPA:

AOC 1 – North Landfarm

- Remedial Investigation Workplan / Remedial Action Workplan (RIW/RAW) submitted to NJDEP/USEPA in the Third Quarter (Q3) 2016
- Comments received from NJDEP/EPA North Landfarm RAW 2018

- 90% Soil Remediation Action Design for the engineering controls submitted to the NJDEP/USEPA April 2020
- 100% Soil Remediation Action Design is currently in process with a targeted submittal in Q2/Q3 2022
- Updated Groundwater Sampling Plan being prepared for submittal, review, and NJDEP approval in 2022, pending approval of the No. 1 Landfarm Groundwater sampling plan (see below)

AOC 2 – South Landfarm

- RIW/RAW submitted to NJDEP/USEPA in Q3 2016
- Comments received from NJDEP/USEPA South Landfarm RAW 2019
- Response is being completed and will be submitted in 2022
- Updated Groundwater Monitoring Plan being prepared for submittal, review, and NJDEP approval in 2022, pending approval of the No. 1 Landfarm Groundwater sampling plan (see below)

AOC 3 – No. 1 Landfarm

- RIW/RAW submitted to NJDEP/USEPA in Q3 2016
- Comments received from NJDEP/USEPA No. 1 Landfarm RAW 2018
- 100% Soil Remediation Action Design for the engineering controls was submitted to the NJDEP Q3 2019
- NJDEP/USEPA approved the 100% design in April 2020
- Permits were submitted for the final design in June 2020, September 2020, and October 2020 (see **Section 4.3** for permits summary)
- Updated Groundwater Sampling Plan submitted to NJDEP/USEPA in Q3 2021 (Comments were provided by the NJDEP on January 27, 2022 and a response submitted on April 22, 2022)
- Construction remedial closure activities began in October 2021 and are ongoing with a Q3 2022 target completion date

AOC 10 – Truck Loading Rack, AOC 57 – Day Tankfield
AREA AOCs – AOC 29 – Mixing Basin, AOC 43 – Truck Unloading Area, AOC 110 – Oil/Water Separator, AOC 111 – Chemical Storage Area, AOC 82 – Former Incinerator Building, AOC 86 - Truck Rack VRU, and AOC 109 – Truck Rack Sump

- RIW/RAW submitted to NJDEP/USEPA in Q3 2016 (AOC 10 only)
- Comments received from NJDEP/USEPA Q1 and Q2 2017
- Response to Comments (RTC) submitted in Q3 2017
- RIW/RAW Approved Q4 2017 and Q3 2018
- Monitoring well installation on-site conducted in Q4 2018
- Soil investigation conducted in Q3 2019
- Monitoring well installation off-site conducted in Q4 2019
- Supplementary revised RIW was submitted on Q2 2021 (all AOCs specified above)

- "At Risk" Remedial Investigation (RI) activities began December 2021 and are ongoing

AOC 11a – Administration Building; AOC 78 – Administration Building Drainage Channel

- RIW/RAW submitted to NJDEP/EPA in Q1 2016 and approved by NJDEP/USEPA Q2 2017
- RI activities began in Q3 2017 and are currently ongoing
- Indoor air sampling was conducted in Q3 2020 and Q1 2021
- A meeting was held on March 16, 2022, to discuss delineation activities for AOC 11a and Site drilling constraints. A power point presentation was provided to the NJDEP and EPA on March 11, 2022, which summarized historic investigation activities and proposed future investigation activities. The NJDEP requested additional information via email on March 17, 2022. The additional requested information was provided to the NJDEP/EPA on April 21, 2022; prior to the Site visit scheduled for April 27, 2022.

AOC 12 – Smith Creek and Detention Basin

- RIW/RAW submitted to NJDEP/EPA Q3 2016
- Comments received from the NJDEP/USEPA in Q1 2017
- RTC submitted in Q2 and Q4 2017
- RIW/RAW approved by NJDEP/USEPA Q2 2018
- Sediment and surface water investigation conducted in 2018 and 2019
- Soil investigation and monitoring well installation (on and off-site) conducted in Q3 2019
- Supplementary revised RIW was submitted Q3 2021 (Comments were provided by the NJDEP on February 23, 2022 and a response is currently being prepared)

AOC 19 – QC Laboratory

- RIW/RAW submitted to NJDEP/EPA Q2 2016 and approved Q2 2016
- Remedial Investigation Report / Remedial Action Report (RIR/RAR) submitted to NJDEP/USEPA Q2 2017
- Comments received from the NJDEP/USEPA in Q3 2017
- RTC submitted Q3 2017
- Revised RIR/RAR submitted to NJDEP/USEPA Q1 2018
- NJDEP/USEPA meeting in Q2 2018
- Revised RIR/RAR submitted in Q3 2019 and approved in Q4 2019
- Remedial Action Permits (RAPs) for soil and groundwater submitted to NJDEP Site Remediation (January 6, 2021) for review prior to submittal
- Deed notice approved by NJDEP/USEPA in Q1 2021 and was filed with the Middlesex County Departments

- Meeting was held with NJDEP/USEPA on May 18, 2021 and some additional supplemental sampling was requested prior to submitting the RAPs to NJDEP permitting
- Groundwater sampling was conducted on July 1, 2021
- Final RAPs were submitted to NJDEP Bureau of Remedial Action Permitting in Q3 2021 and comments/revisions were sent via email on March 8, 2022 (from the Site Remediation Case Team). All requested revisions were completed, and the revised documents uploaded to the Earth Systems portal on April 4, 2022.

AOC 103 – Fire Pits/Fire Training Area (Part of AOC Group – Proposed Future Solar Field Area)

- Site Investigation Workplan (SIW) submitted to NJDEP/USEPA Q2 2019
- Comments received from NJDEP/USEPA in Q2 2019
- Teleconference and quarterly progress meeting with NJDEP/USEPA Q2 2019
- RTC submitted on June 24, 2019
- Revised SIW submitted in Q4 2019 and approved by NJDEP/USEPA Q4 2019
- Seven (7) groundwater monitoring wells installed and sampled in Q1 2020
- A PowerPoint presentation summarizing the investigation and recommendations for further investigation was provided to the NJDEP/USEPA on April 9, 2020 and discussed during a teleconference on June 29, 2020
- NJDEP provided additional comments on July 7, 2020 and RTC was submitted to the NJDEP on August 18, 2020
- RIW submitted to NJDEP/EPA in Q1 2021
- NJDEP provided comments on July 28, 2021 and a meeting was held to discuss the comments on August 16, 2021
- RTC was submitted to NJDEP/USEPA on September 28, 2021
- RIW was approved on October 12, 2021
- RI activities began November 2021 and are ongoing

AOC 16b – Marine Terminal Loading Area, AOC 85 – Marine VRU (RIW also includes area AOCs)

- Marine Area RIW submitted to NJDEP/USEPA Q3 2021
- “At Risk” RI activities began in Q1 2022 and are ongoing

Tankfields – AOC 6 – HSWA UST, AOC 14a – First Tankfield, AOC 46 – Slop Gasoline Unloading Area, AOC 53 – Second Tankfield, AOC 54 – Third Tankfield, and AOC 56 – Second Reserve Tankfield

- RIW/RAW submitted to NJDEP/USEPA Q2 2021
- “At Risk” RI activities began in Q1 2022 and are ongoing

Former Refining Area Remediation Management Unit - AOC-9 Alkylation Unit (Sewer Line), AOC-18 Dimersol Unit, AOC-20a T1600-A and T-1600B Transformers, AOC-20b T510-A and T510-B Transformers, AOC-25 X-1950A and X-1950B (Alkylation Neutralization Basin), AOC-26 D-1104 (MEA Sump, AOC-27 EADC Sump, AOC-28

Cooling Water Tower, AOC-30 Sulfur Pit, AOC-31 Brine Pit, AOC-32 X-1951 (SRU Neutralization Basin), AOC-38 NH3 Truck Loading Rack/Ammonia Area, AOC-39 EADC Truck Unloading Area, AOC-40 Fresh Acid Unloading Area, AOC-45 Former Sulfur Recovery Unit Truck Loading Rack, AOC-47 Bleach Truck Unloading Area, AOC-58 Former Chemical Storage Area, AOC-59 API Storage Area, AOC-60 Avenue B Tank Field, AOC-80 Former Crude Topping Unit, AOC-88 Compressor Building, AOC-89 Cracking Tower, AOC-92 TK-701A and TK-701B, AOC-96 Boiler Area, AOC-99 Chemical Storage Area, AOC-117 Diesel Powered Emergency Generator - Millwright's Shop

- RIW/RAW submitted to NJDEP/USEPA Q2 2021
- "At Risk" RI activities initiated in Q3 2021
- Additional "At Risk" RI activities scheduled to begin again in Q2 2022

2.1 Groundwater Gauging

HC-PR conducts monthly gauging events as part of the Interim Remedial Measures (IRMs) at the site. Bi-weekly gauging events target monitoring wells with a history of LNAPL or sheen, and wells in close proximity to LNAPL or sheen detections.

Bi-Weekly Gauging

Groundwater gauging is currently conducted for the following thirty-six (36) monitoring wells: (PL-1RR, PL-2, PL-3R, PL-4RR, PL-5R, PL-6R, PL-7, PL-8R, PL-9R, TF-1, TF-2, TF-3, TM-6R, TM-7, TR-1R, TR-2R, TR-3RR, TR-3D, TR-3DD, TR-4R, TR-4D, TR-4DD, TR-5, TR-5D, TR-5DD, TR-6, TR-6D, FA-1, FA-2, FA-3, FA-4, FA-5, FA-6, FA-7, FA-14, and FA-15), two (2) recovery sumps (TR-Sump-1 and TR-Sump-2), the interceptor trench, and six (6) surface water gauges (DB-SW, LN-SW, L1-SW, SC-SG-1, SC-SG-1A, and SC-SG-2). Please note that monitoring wells TR-2R, TR-4R, TR-4D, and TR-4DD were inaccessible during the Q1 2022 gauging events due to ice and/or flooding. Also, the stream gauges present in Smith Creek have been damaged and replacement is currently being coordinated.

All monitoring wells are gauged by utilizing a Solinist oil/water interface probe and measured from a surveyor's mark (present on the top of the inner casing) to the top of the groundwater table.

During the Q1 of 2022, bi-weekly gauging was conducted in January, February, and March (summarized below). The results of the gauging activities are provided in **Table 1**. Historic LNAPL levels are summarized in **Table 3**.

For reference purposes, all site monitoring well documentation has been compiled into a comprehensive Well Manual. As of the date of this report preparation, the current version of the approved Well Manual is dated November 19, 2021. The Well Manual is revised as new wells are installed at the site and re-dated pursuant to agreements between USEPA, NJDEP, Earth Systems, and Hess. The Well Manual includes the following:

- Master Well Construction Details Summary Table
- Well Permits

- Well Records
- Geologic Well Logs
- Form B's

The results of the Q1 2022 monthly groundwater gauging events are summarized below:

- During the January 2022 gauging events, a measurable thickness of LNAPL was encountered in monitoring wells FA-5 and PL-5R. A discontinuous sheen was encountered in monitoring wells PL-1RR, TF-2, FA-3, and the interceptor trench.

- During the February 2022 gauging events, a measurable thickness of LNAPL was encountered in monitoring wells FA-5 and PL-5R. A discontinuous sheen was encountered in monitoring wells PL-1RR, TF-2, FA-3, and the interceptor trench.

- During the March 2022 gauging events, a measurable thickness of LNAPL was encountered in monitoring wells FA-5 and PL-5R. A discontinuous sheen was encountered in monitoring wells PL-1RR, TF-2, FA-3, and the interceptor trench.

An analysis of groundwater elevations indicate that groundwater flow direction is generally to the south and east, consistent with historic groundwater flow direction on the Site and the Port Reading Conceptual Site Model (CSM) (see **Figures 6**, **7** and **8**).

2.2 LNAPL IRM

Currently, passive LNAPL recovery methods and scheduled vacuum extraction events are being utilized at the site. Absorbent socks are placed in impacted wells and replaced as necessary. All used socks are placed in a 55-gallon drum staged on-site. Once at capacity, the drum is removed from the HC-PR site and disposed of at a licensed waste disposal facility. Vacuum extraction events are scheduled, as necessary, to address LNAPL observed in the interceptor trench and any monitoring well with significant measurable product. No vacuum extraction events were conducted during Q1 of 2022 since there was no measurable LNAPL observed in the interceptor trench (only a discontinuous sheen observed). Only passive recovery methods of LNAPL were utilized for monitoring wells in Q1 2022.

3.0 Groundwater Monitoring

On January 26, 27, and 28, 2022, groundwater samples were collected via low-flow sampling methodology in accordance with the NJDEP's *Field Sampling Procedures Manual (FSPM)* at the three (3) Landfarm locations (North, No.1, and South Landfarms).

Samples were collected in laboratory supplied glassware and transferred to Alpha Analytical (Alpha) of Westborough, Massachusetts (NJ NELAP Certification No. MA015/MA935) under strict chain of custody procedures.

Pursuant to USEPA/DEP direction (via comment letter dated November 13, 2020), analytical results are no longer included in the Quarterly reports. Analytical results will

be provided in the Semi-Annual Report only, which will be submitted in July 2022. Groundwater gauging maps for the landfarms are included as **Figures 9**, **10**, and **11** and groundwater elevations are summarized on **Table 2**.

4.0 Areas of Concern and Solid Waste Management Units Update

As discussed previously, a PAR and SIR were submitted to the NJDEP and USEPA on October 9, 2015 and November 7, 2015, respectively. The SIR described the soil and groundwater investigation activities conducted on the site. Several RIW's were submitted subsequent to the SI for select AOCs. The following is a brief summary of any remediation investigation activities conducted during Q1 2022.

AOC-3 No. 1 Landfarm (SWMU)
Routine monitoring (groundwater, soil, and leachate) will continue at the No. 1 Landfarm, pending approval and execution of closure. A RAW was submitted to the USEPA and NJDEP in September 2016 and comments were received from the USEPA and NJDEP on July 9, 2018. A 100% Soil Remedial Action Design for the No. 1 Landfarm engineering control was submitted on May 24, 2019. Comments regarding the 100% engineering control design submittal were received from the NJDEP on October 7, 2019. The comments were addressed by Hess/Earth Systems on November 1, 2019 and the NJDEP subsequently approved the response. The NJDEP and USEPA issued an approval letter of the 100% engineering control design on April 28, 2020.

The following permits were submitted in June 2020 and October 2020 and have been approved by the NJDEP on the dates provided:

- Soil Erosion & Sediment Control Plan (Freehold Soil Conservation District), approved on August 17, 2020
- Flood Hazard Area Individual Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
- Waterfront Development GP-11 Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
- Freshwater Wetland GP-4 Permit (NJDEP Land Use Regulation Program), approved on September 25, 2020
- NJPDES B4B Permit (NJDEP Wastewater Program), approved on September 15, 2020
- Treatment Works Approval TWA-1 Permit (NJDEP Wastewater Program), approved on February 18, 2021
- NJPDES Individual Permit (NJDEP Stormwater Program), public comment period is over and approved on August 1, 2021.

The NJDEP Office of Hazardous Waste Compliance & Enforcement observed the Q2 2021 groundwater sampling event and no violations were found, according to the Inspection Summary Report finalized on September 10, 2021.

The updated Groundwater Sampling Plan for the No. 1 Landfarm was submitted on August 25, 2021 to the NJDEP and USEPA. The NJDEP provided comments on January 27, 2022, and a response was submitted on April 22, 2022.

Landfarm capping and construction activities were initiated in October 2021 and are currently ongoing.

AOC 10 – Truck Loading Rack and AOC 57 – Day Tankfield

A Supplemental RIR/RIW was submitted in Q1 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and revised to incorporate the additional requested information. The revised RIR/RIW was submitted on April 26, 2021. As discussed during the Q3 Quarterly meeting, "At Risk" investigation activities began in October 2021 and are currently ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

Former Refining Area Remediation Management Unit (FRAMU)

A Supplemental RIR/RIW was submitted in Q2 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and revised to incorporate the additional requested information. The revised RIR/RIW was submitted on May 20, 2021. As discussed during the Q3 Quarterly meeting, "At Risk" investigation activities began in October 2021 and are currently ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

AOC 19 – QC Laboratory & AOC 90 – Former Drum Compound

Final RAP applications were submitted to the NJDEP Bureau of Remedial Action Permitting for review on August 26, 2021. The NJDEP Site Remediation Case Team provided comments via email on March 8, 2022. All requested revisions were completed, and the revised documents uploaded to the Earth Systems portal on April 4, 2022 for NJDEP case team review and subsequent RAP approval from the permitting team.

AOC 103 – Fire Pits/Fire Training Area (Part of AOC Group – Proposed Future Solar Field Area)

The Proposed Future Solar Project Area RIW, which includes AOC 103, was submitted on April 26, 2021. The NJDEP provided comments on July 28, 2021 and a meeting was held on August 16, 2021 to discuss the comments. A RTC was submitted by Hess/Earth Systems on September 28, 2021. The RIW was approved on October 12, 2021 and RI activities started in November 2021 and are ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

Tankfields

A Supplemental RIR/RIW was submitted in Q2 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the "over-arching issues" memo), the RIR/RIW was rescinded and revised to incorporate the additional requested information. The revised RIR/RIW was submitted on May 10, 2021. As discussed during the Q3 Quarterly meeting, "At Risk" investigation activities

began in October 2021 and are currently ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

5.0 Schedule

Site-wide LNAPL Monitoring & Recovery

Bi-weekly gauging events continue to be conducted as part of the IRM at the site. In addition, LNAPL will continue to be removed via vacuum truck from both the interceptor trench and select monitoring wells, as necessary. Passive absorbent socks and booms will also continue to be deployed in both the interceptor trench and select monitoring wells, as necessary.

AOC 10 – Truck Loading Rack and AOC 57 – Day Tankfield

As discussed during the Q3 Quarterly meeting, “At Risk” investigation activities began in October 2021 and are currently ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

AOC 12 – Smith Creek and Detention Basin

A Supplemental RIR/RIW was submitted in Q1 2020. Based upon subsequent discussions with NJDEP/USEPA pertaining to the Port Reading June 9, 2020 memo (i.e. the “over-arching issues” memo), the RIR/RIW was rescinded and revised to incorporate the additional requested information. The revised RIR/RIW was submitted on July 30, 2021. The NJDEP provided comments on February 23, 2022 and a response is currently being prepared with a Q2 2022 targeted submittal date.

AOC 103 – Fire Pits/Fire Training Area (Part of AOC Group – Proposed Future Solar Field Area)

The RIW was approved on October 12, 2021 and RI activities began in November 2021 and are still ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

AOC 11a – Administration Building

A meeting was held on March 16, 2022, to discuss delineation activities for AOC 11a and Site drilling constraints. A power point presentation was provided to the NJDEP and EPA on March 11, 2022, which summarized historic investigation activities and proposed future investigation activities. The NJDEP requested additional information via email dated March 17, 2022. The additional information was provided to the NJDEP/EPA on April 21, 2022; prior to the Site visit scheduled for April 27, 2022.

Former Refining Area Remediation Management Unit (FRAMU)

As discussed during the Q3 Quarterly meeting, “At Risk” investigation activities began in October 2021 and are currently ongoing. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

Former Marine Loading Dock Area

The Marine Loading Dock Area RIW was submitted on July 12, 2021. As discussed during the Q3 USEPA/NJDEP/Hess/Earth Systems meeting, the proposed investigation activities were initiated in Q1 2022. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

Tankfields

As discussed during the Q3 USEPA/NJDEP/Hess/Earth Systems meeting, the proposed investigation activities were initiated in Q1 2022. At the completion of all RI activities, a final RIR will be submitted that will document all investigation data and observations.

Landfarms

The next quarterly sampling event for the North, South, and No. 1 Landfarms is scheduled in April 2022.

AOC 1 – North Landfarm (SWMU)

Routine groundwater monitoring will continue at the North Landfarm, pending approval and execution of the proposed Closure Plan. A Remedial Action Workplan (RAW) was submitted to the USEPA and NJDEP for the North Landfarm in September 2016. Comments were received from the USEPA and NJDEP on June 7, 2018. A 90% Soil Remediation Action Design (RAD) for the North Landfarm engineering control was submitted to the USEPA and NJDEP on October 24, 2019. The NJDEP and USEPA issued an approval letter for the 90% design on April 28, 2020. The current owner, Buckeye, has recently completed the lining of the tankfield located directly adjacent to the North Landfarm. The 100% RAD is in the process of being finalized.

The updated Groundwater Sampling Plan for the North Landfarm is being prepared and will be submitted pending approval of the Groundwater Sampling Plan for the No. 1 Landfarm.

AOC 2 – South Landfarm (SWMU)

Routine groundwater monitoring will continue at the South Landfarm, pending approval and execution of the proposed Closure Plan. A RAW was submitted to the USEPA and NJDEP for the South Landfarm in September 2016. Comments were received from the USEPA and NJDEP on March 20, 2019. A RIW is currently being prepared for the Former Oily Water Lagoon Area, which is adjacent to the South Landfarm. A response will be provided to the NJDEP South Landfarm comments once an investigation of the area is complete.

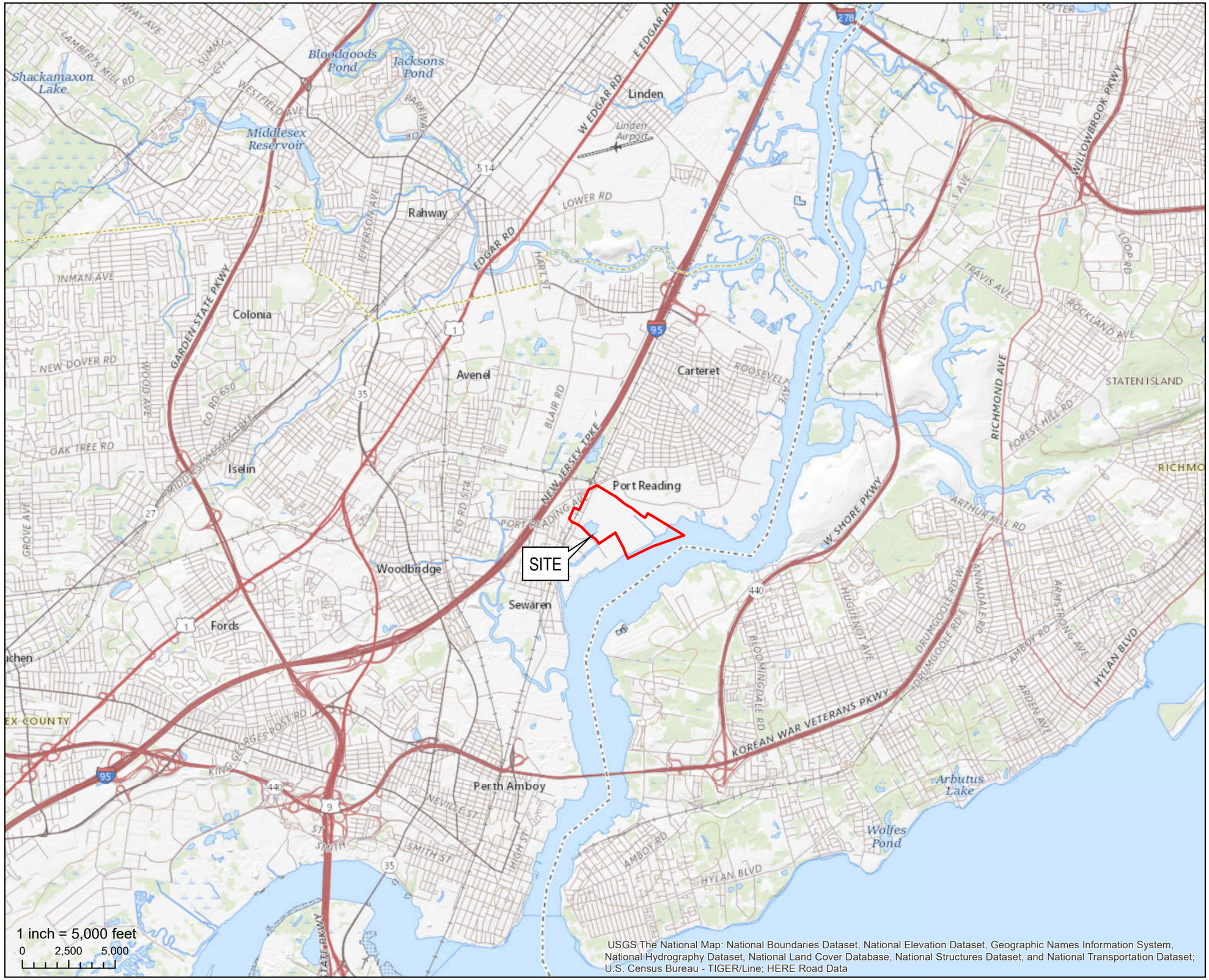
The updated Groundwater Sampling Plan for the South Landfarm is being prepared and will be submitted pending approval of the Groundwater Sampling Plan for the No. 1 Landfarm.

AOC 3 – No. 1 Landfarm (SWMU)

Routine groundwater monitoring will continue at the No. 1 Landfarm during closure activities. The updated Groundwater Sampling Plan for the No. 1 Landfarm was submitted on August 25, 2021 to the NJDEP and USEPA. The NJDEP provided comments on January 27, 2022 and a response was submitted on April 22, 2022.

Remedial capping activities began in October 2021 for the No. 1 Landfarm and are ongoing.

Figures



USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data

N

LEGEND

Port Reading Site Boundary

NEW JERSEY QUADRANGLE LOCATION:
53 - JERSEY CITY, NEW JERSEY

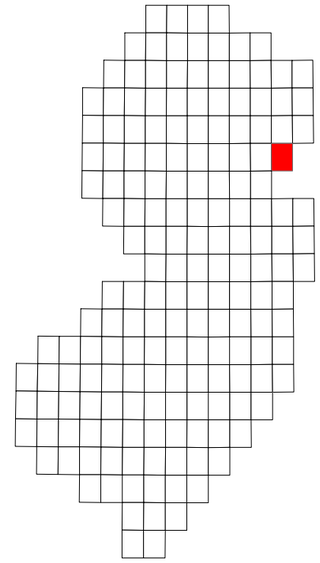


FIGURE 1:
USGS SITE LOCATION MAP

HESS CORPORATION
FORMER PORT READING TERMINAL
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	4/16/2020
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

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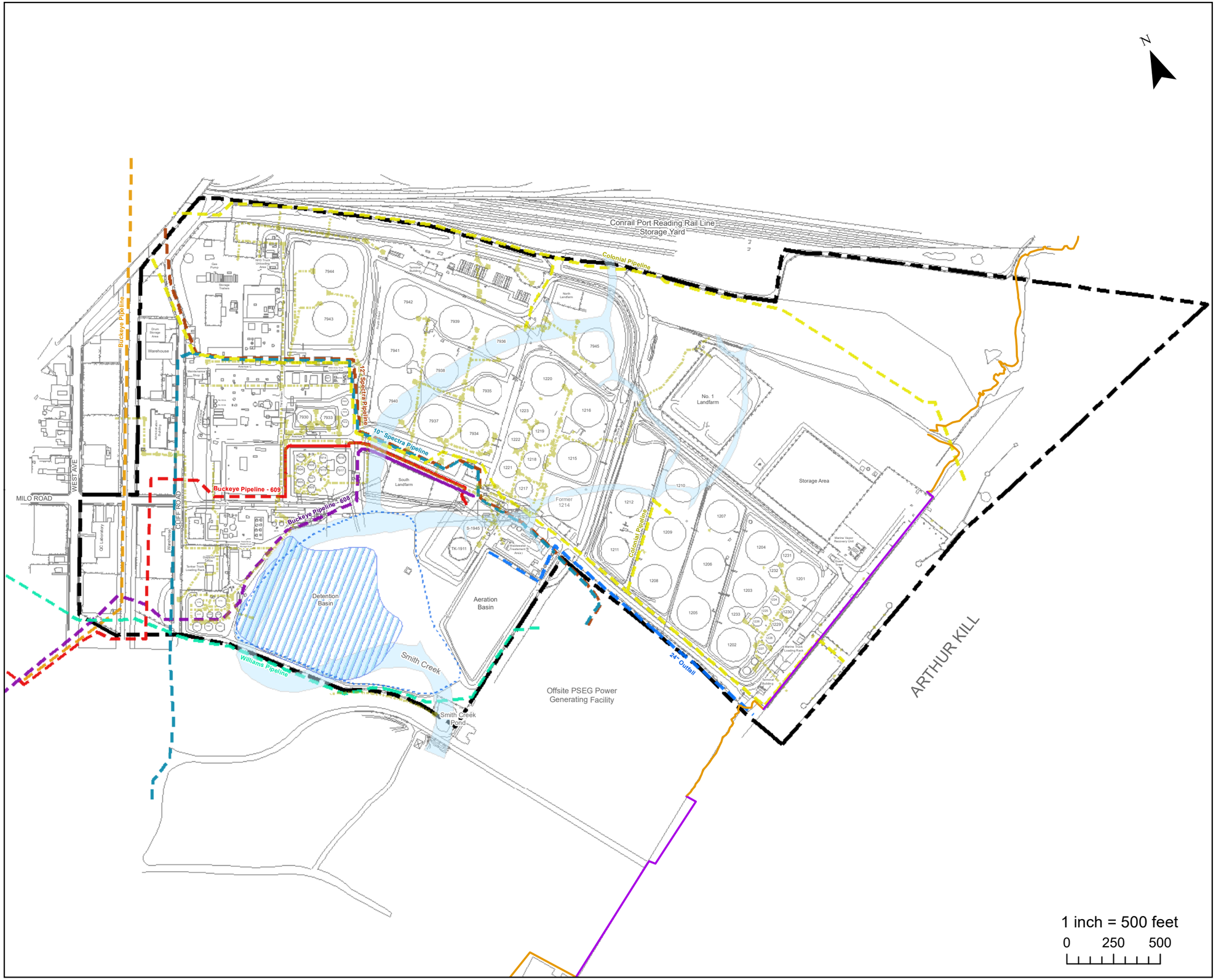
Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Port Reading - USGS Site Location Figure.mxd



LEGEND

- Site Boundary
- AOC 12 Extent
- Basin Present Extents
- Former Smith Creek Channel
- Shoreline
- Bulkhead

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Williams Pipeline
- Sitewide Utilities/Wastewater

Utility and Pipe Line Note:
- Solid Line: Above-ground
- Dotted Line: Underground

FIGURE: 2
Site Plan

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	03/25/2021
SRP PI#:	006148	**Drawn By:**	AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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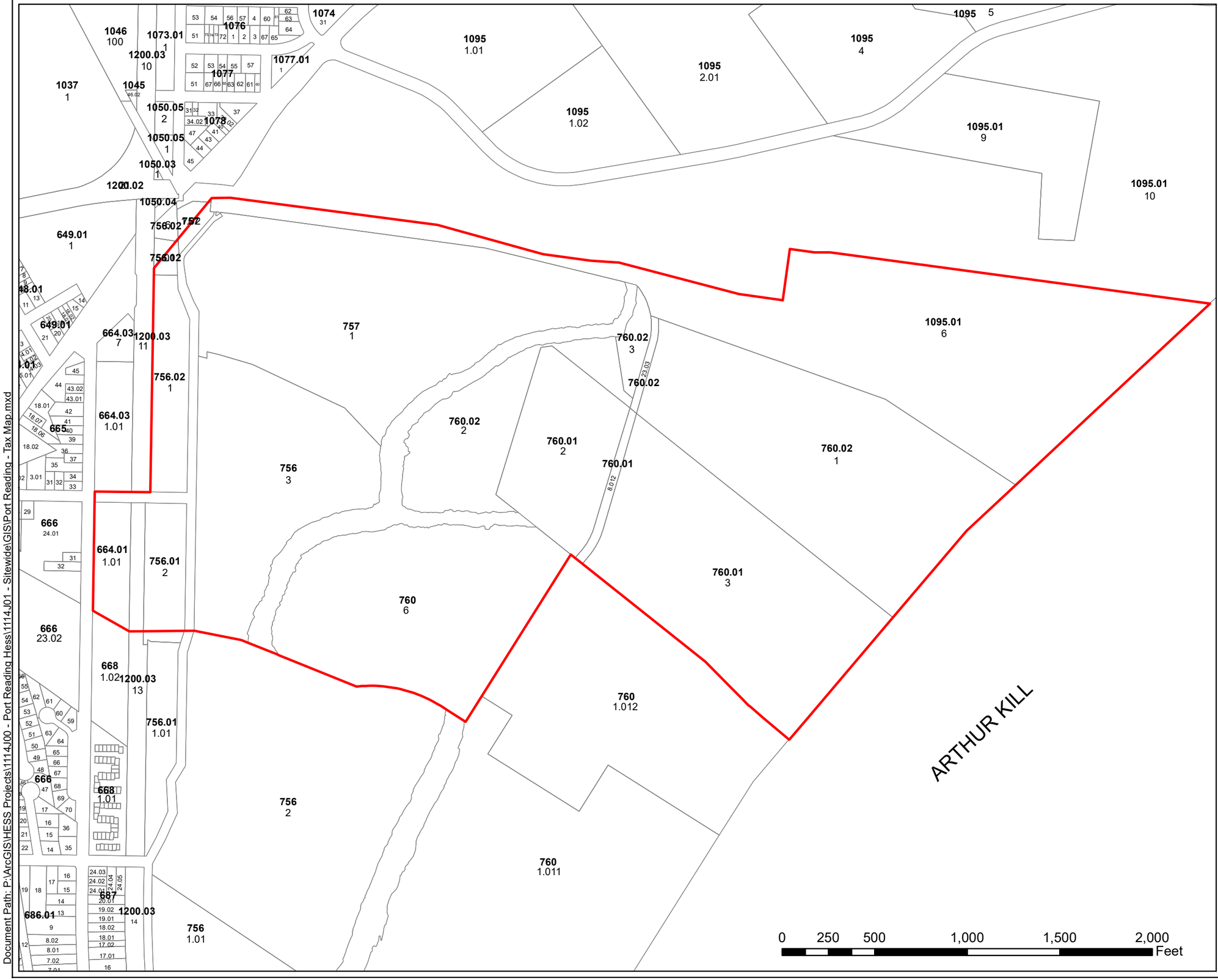

LEGEND

- Site Boundary
- Tax Parcels

N

FIGURE: 3

TAX MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	04/22/2022
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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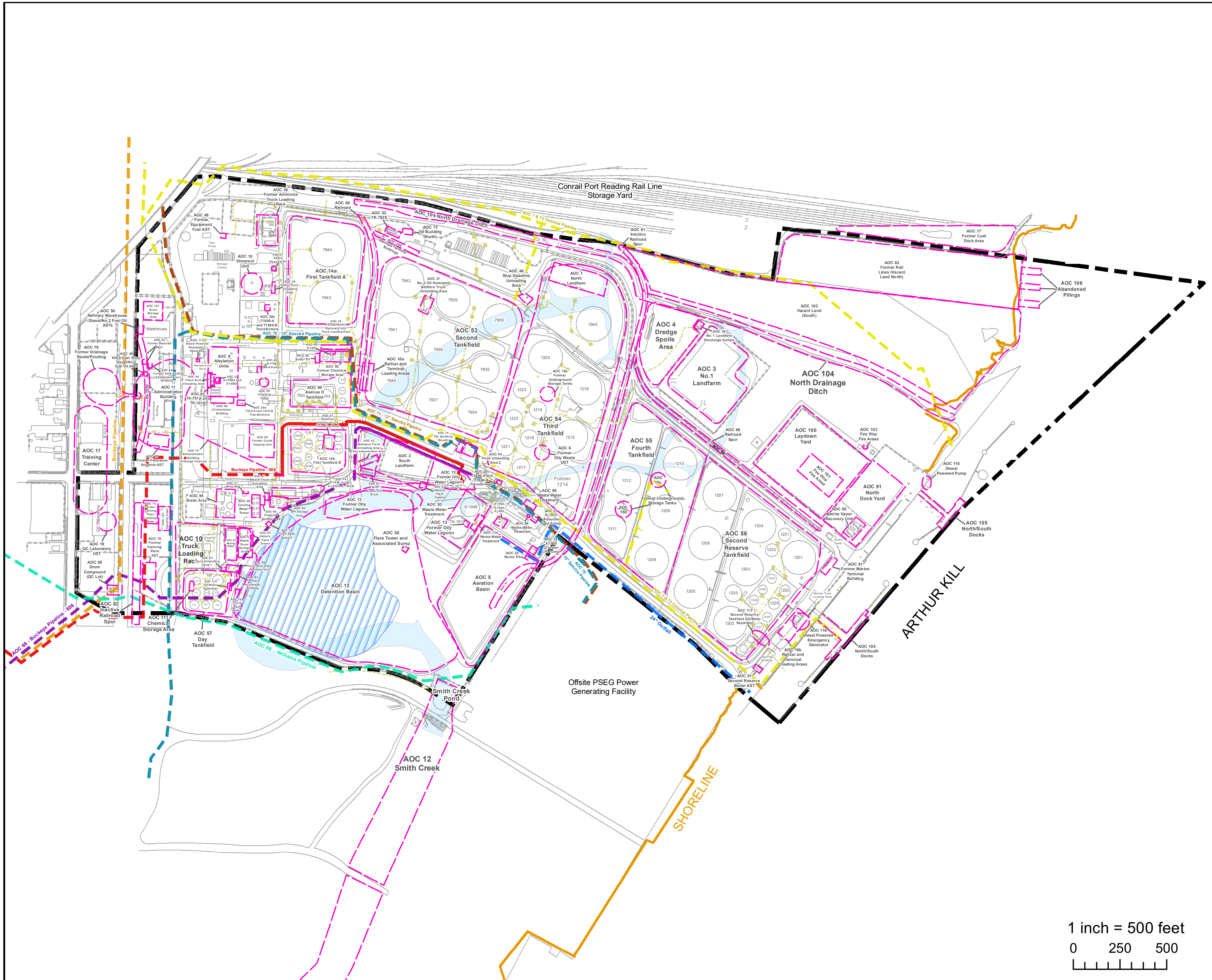
This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized.
Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Port Reading - Tax Map.mxd



LEGEND

- AOC Boundary
- Sitewide Utilities
- Shoreline
- Site Boundary
- Detention Basin Current Extents
- Former Smith Creek Channel

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

N

Pipelines:
- Solid Line: Aboveground
- Dotted Line: Underground

FIGURE: 4

AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/24/2021
SRP PI#:	006148	**Drawn By:**	KJ/RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized.
Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

LEGEND

- AOC Boundary
- Sitewide Utilities
- Underground Utility Lines
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
Solid Line: Aboveground
Dotted Line: Underground

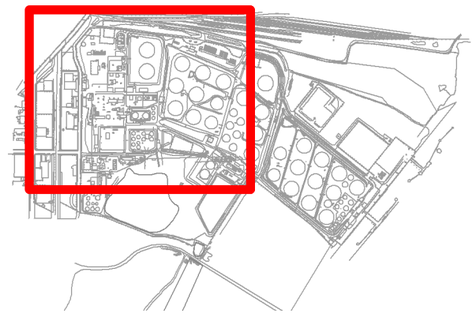


FIGURE: 4.1

AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/25/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

1 inch = 204 feet
0 100 200

AOC 7 & 72 Colonial Pipeline
AOC 61 Inactive Railroad Spur
AOC 17 Former Coal Dock Area
AOC 63 Former Rail Lines (Vacant Land North)
AOC 1 North Landfarm
AOC 102 Vacant Land (South)
7945
AOC 35 No. 1 Landfarm Discharge Sumps
AOC 4 Dredge Spoils Area
1220
AOC 15a Former Underground Storage Tanks
AOC 3 No.1 Landfarm
AOC 104 North Drainage Ditch
1216
Fifth Street
12
AOC 54 Third Tankfield
1215
8
AOC 6 Former Oily Waste UST
AOC 55 Fourth Tankfield
AOC 66 Railroad Spur
AOC 66
AOC 100 Laydown Yard
AOC 103 Fire Pits/ Fire Areas
1210
AOC 103 Fire Pits/ Fire Areas
AOC 115 Diesel Powered Pump
1212
Former 1214
AOC 95 Waste Water Treatment
AOC 15c
Former Underground Storage Tanks
1207
AOC 91 North Dock Yard
AOC 15b
1209
AOC 85 Marine Vapor Recovery Unit
AOC 21 X-1933 (Adsorber Feed Sump)
1211
1204
AOC 105 North/South Docks
1231
AOC 56 Second Reserve Tankfield
1206
Guard Tower
1232
AOC 22 X-1908 (Clarifier Lift Sump)
1201
1208
AOC 81 Former Marine Terminal Building
1203
1224
10" Spectra Pipeline
AOC 70
24" Outfall
AOC 7 & 72 Colonial Pipeline
1225
1230
1205
1233
Marine Truck Loading Rack
1226
Arthur Kill

1 inch = 200 feet
0 100 200

LEGEND

N

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Solid Line: Aboveground
- Dotted Line: Underground

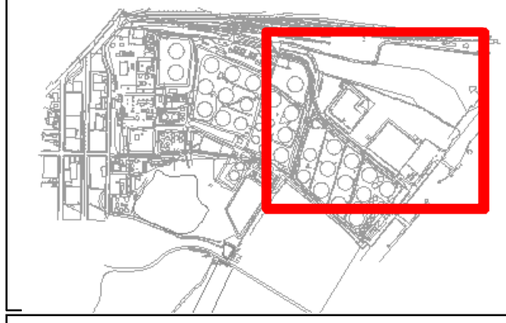


FIGURE: 4.2
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/26/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

AOC 3
No.1
Landfarm

AOC 104
North Drainage
Ditch

AOC 15a
Former
Underground
Storage Tanks

Fifth Street

AOC 54
Third
Tankfield

AOC 55
Fourth
Tankfield

AOC 66
Railroad
Spur

AOC 100
Laydown
Yard

AOC 103
Fire Pits/
Fire Areas

AOC 91
North
Dock Yard

AOC 74
TEL Building
(South)

AOC 71 - 12" Spectra Pipeline

AOC 2
South
Landfarm

AOC 13
Former Oily
Water Lagoon

AOC 44
Truck Unloading
Area 2

AOC 6
Former
Oily Waste
UST

AOC 20c
T2606-A and
T2606-B
Transformers

AOC 83
Historic
Flare
Towers

AOC 95
Waste Water
Treatment

AOC
15c

Former Underground
Storage Tanks

AOC
15b

AOC 93
Waste Water
Treatment

AOC 23
X-1904,
S-1922,
X-1903

AOC 21
X-1933
(Adsorber
Feed Sump)

AOC 94
Waste Water
Treatment

AOC 114
Waste Water
Treatment

AOC 22
X-1908
(Clarifier
Lift Sump)

AOC 24
Sluice Pit

AOC 56
Second
Reserve
Tankfield

AOC 85
Marine Vapor
Recovery Unit

Guard
Tower

AOC 81
Former Marine
Terminal
Building

10" Spectra Pipeline

AOC 70

24" Outfall

AOC 7 & 72 Colonial Pipeline

AOC 5
Aeration
Basin

AOC 61

AOC 113
Second Reserve
Tankfield Oil/Water
Separator

Marine Truck
Loading Rack

AOC 116
Diesel Powered
Emergency
Generator

AOC 16b
Railcar and
Terminal
Loading Areas

Terminal
Building

AOC 105
North/South
Docks

Off site PSEG Power
Generating Facility

AOC 51
Second Reserve
Boiler AST

Shore Line

Arthur Kill

Smith Creek
Pond

AOC 12
Smith Creek

1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Solid Line: Aboveground
- Dotted Line: Underground

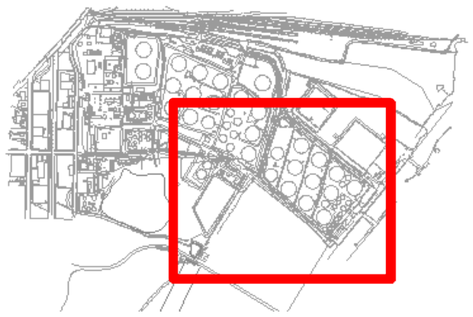


FIGURE: 4.3
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/23/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

AOC 50 Refinery Warehouse Diesel/No.2 Fuel Oil ASTs
Drum Storage Area
Warehouse
AOC 64 Former Railroad Spur
AOC 79 Former Drainage Swale/Ponding
AOC 49 Electrician Shop Diesel/No.2 Fuel Oil ASTs
AOC 84 Former Tank North of Administration Building
AOC 64
AOC 11 Administration Building
Administration Building
AOC 11 Training Center
Buckeye Pipeline
AOC 77 Former Petroleum Solvents AST
MILOS WAY
WEST AVENUE
QC Laboratory
AOC 19 QC Laboratory UST
AOC 90 Drum Compound (QC Lot)
AOC 75 Former Canning Plant Loading Area
AOC 101 Canning Plant
AOC 76 Former Canning Plant AST
AOC 62 Inactive Railroad Spur
AOC 111 Chemical Storage Area
AOC 68 - Buckeye Pipeline - 608
AOC 57 Day Tankfield
AOC 20a T1600-A and T1600-B Transformers
AOC 70 - 10" Spectra Pipeline
AOC 45 Former Sulfur Recovery Unit Truck Loading Rack
AOC 117 Diesel Powered Emergency Generator
Avenue C
AOC 32 X-1951
AOC 30 Sulfur Pit
AOC 58 Former Chemical Storage Area
AOC 9 Alkylation Units
Maintenance Shop
AOC 26 D-1104 (MEA Sump)
Third Street
AOC 40 Fresh Acid Unloading Area
AOC 25 X-1950A and X-1950B
AOC 89 Cracking Tower
AOC 60 Avenue D Tankfield
AOC 88 Compressor Building
AOC 20b T510-A and T510-B Transformers
Avenue B
AOC 41 Gasoline Additive Truck Unloading Rack
AOC 80 Former Crude Topping Unit
AOC 78 Administration Building Drainage Channel
AOC 14b First Tankfield B
AOC 42 Methanol Truck Unloading Area/ Decontamination Area
AOC 71 - 12" Spectra Pipeline
AOC 74 TEL Building (South)
AOC 2 South Landfarm
AOC 13 Former Oily Water Lagoon
AOC 44 Truck Unloading Area 2
AOC 20c T2606-A and T2606-B Transformers
Buckeye Pipeline - 609
AOC 47 Bleach Truck Unloading Area
Avenue A
AOC 31 Brine Pit
AOC 34 X-1930, X-1932, X-1922A, X-1922B
AOC 87 Flare Knock-Out Drum
AOC 83 Historic Flare Towers
AOC 96 Boiler Area
AOC 28 Cooling Water Tower
AOC 99 Chemical Storage Area
AOC 59 API Storage Area
AOC 13 Former Oily Water Lagoon
AOC 93 Waste Water Treatment
S-1945
TK-1911
AOC 114 Waste Water Treatment
AOC 10 Truck Loading Rack
Dispatch Office
AOC 29 Mixing Basin
AOC 8 Waste Drum Storage Area
AOC 33 Truck Rack Sump 2
AOC 36 Flare Tower and Associated Sump
AOC 43 Truck Unloading Area 1
AOC 86 Truck Rack Vapor Recovery Unit
AOC 82 Former Incinerator Building
AOC 110 Oil Water Separator
AOC 109 Truck Rack Sump
AOC 12 Detention Basin
AOC 5 Aeration Basin
AOC 53 Second Tankfield
AOC 16a Railcar and Terminal Loading Areas
AOC 69 - Williams Pipeline
Smith Creek Pond
1 inch = 200 feet
0 100 200

LEGEND

- AOC Boundary
- Underground Utility/Wastewater System
- Detention Basin Current Extents
- Site Boundary

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:
- Solid Line: Aboveground
- Dotted Line: Underground

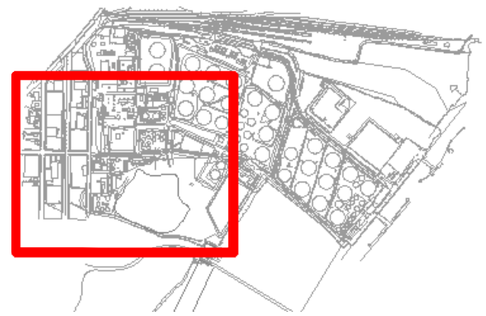
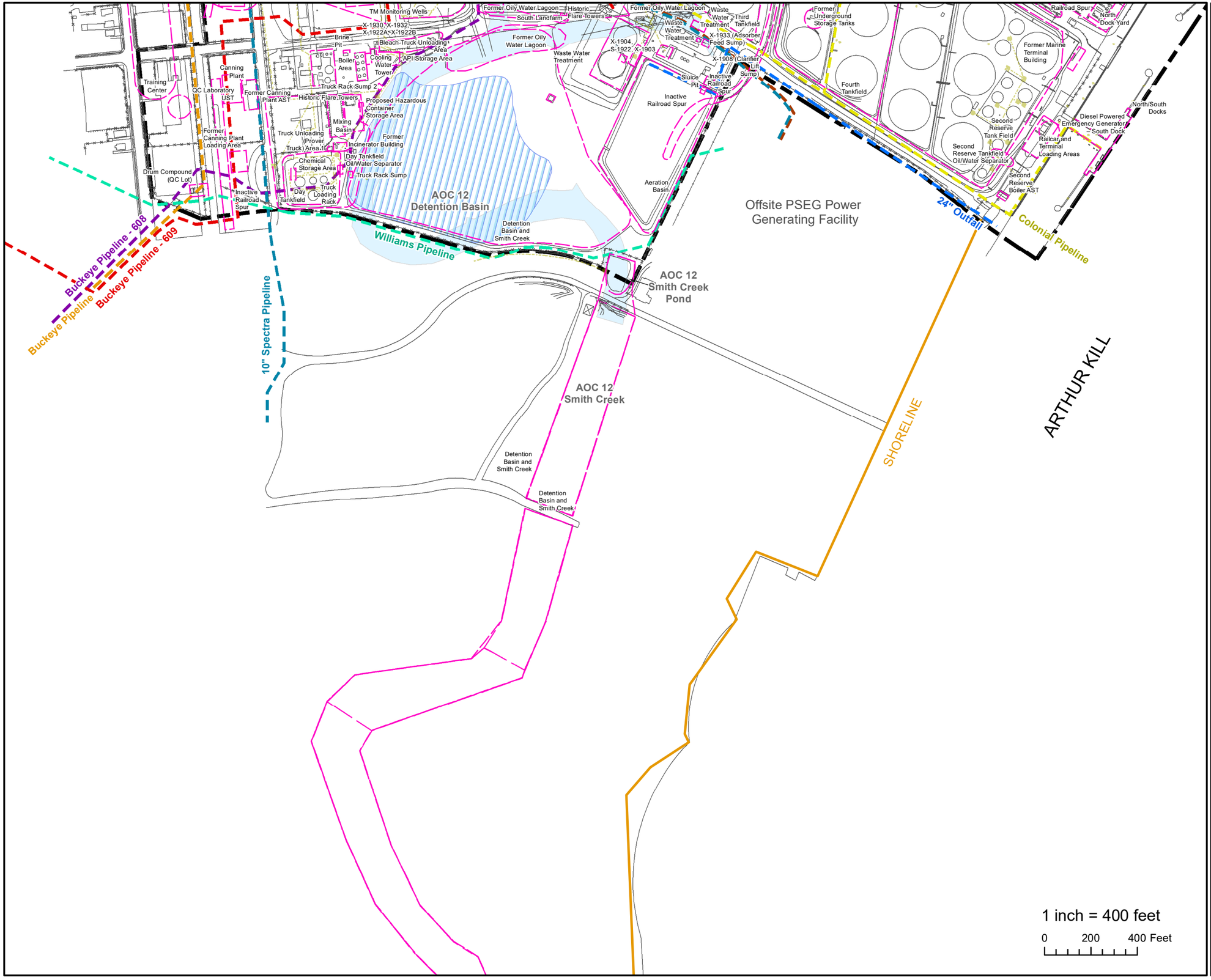


FIGURE: 4.4
AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/23/2021
SRP PI#:	006148	**Drawn By:**	KJ,RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- AOC Boundary
- Sitewide Utility/Wastewater System
- Shoreline
- Site Boundary
- Detention Basin Current Extents

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline

Pipelines:

- Solid Line: Aboveground
- Dotted Line: Underground

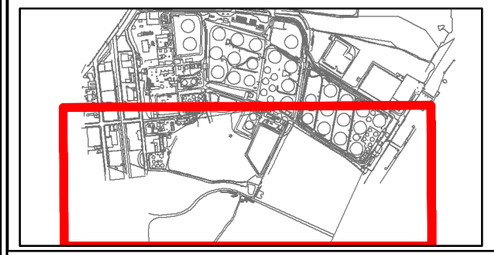


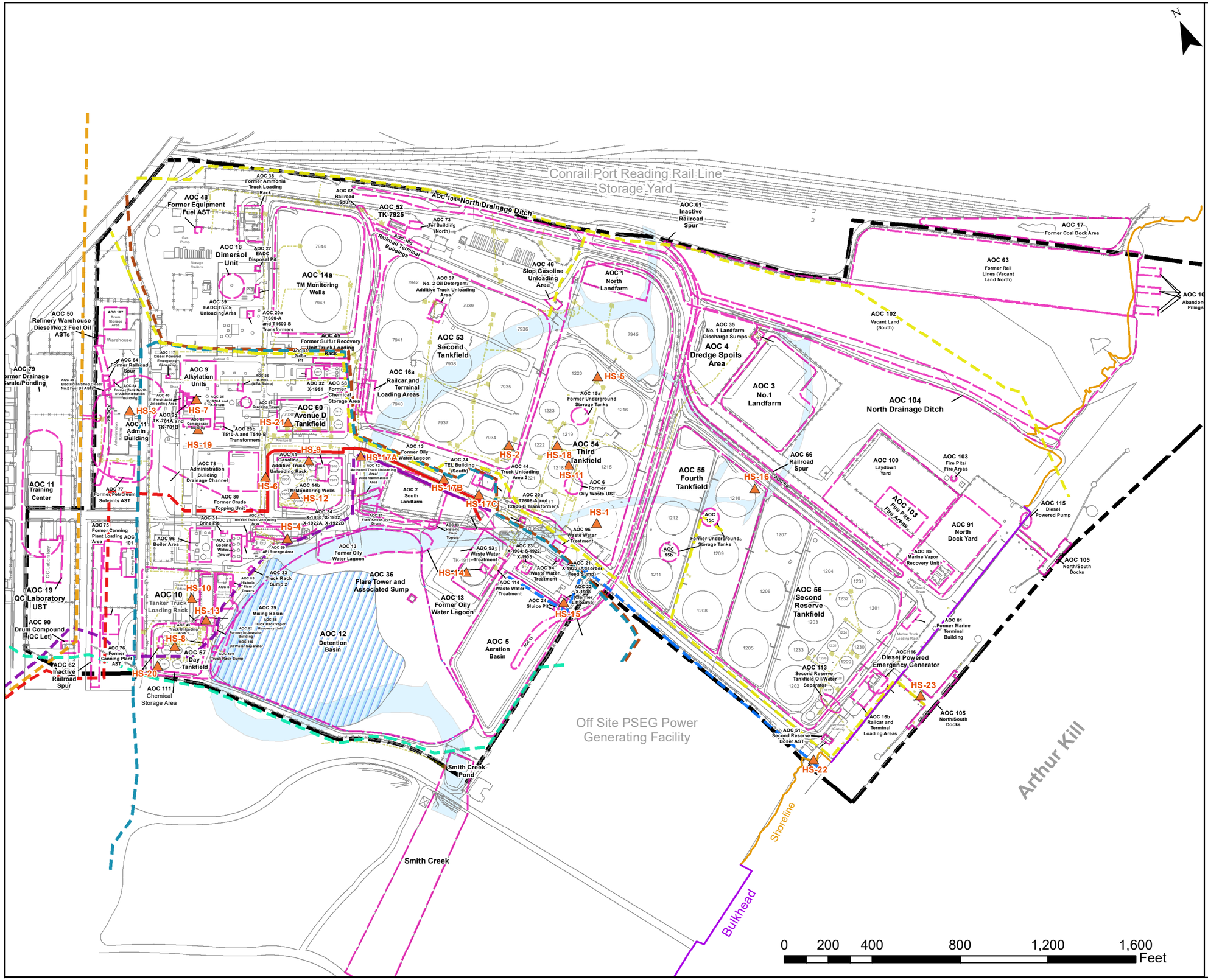
FIGURE: 4.5

AREAS OF CONCERN MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	2/25/2021
SRP PI#:	006148	**Drawn By:**	KJ,AE

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



Legend

- Historical Spill Locations
- AOC Boundary
- Site Boundary
- Former Smith Creek Channel
- Detention Basin Historic Extents
- Detention Basin Current Extents
- Shoreline
- Bulkhead

Pipelines

- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities

Pipelines:
- Soild Line: Aboveground
- Dotted Line: Underground

FIGURE: 5
HISTORIC SPILL LOCATIONS

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	04/22/2022
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
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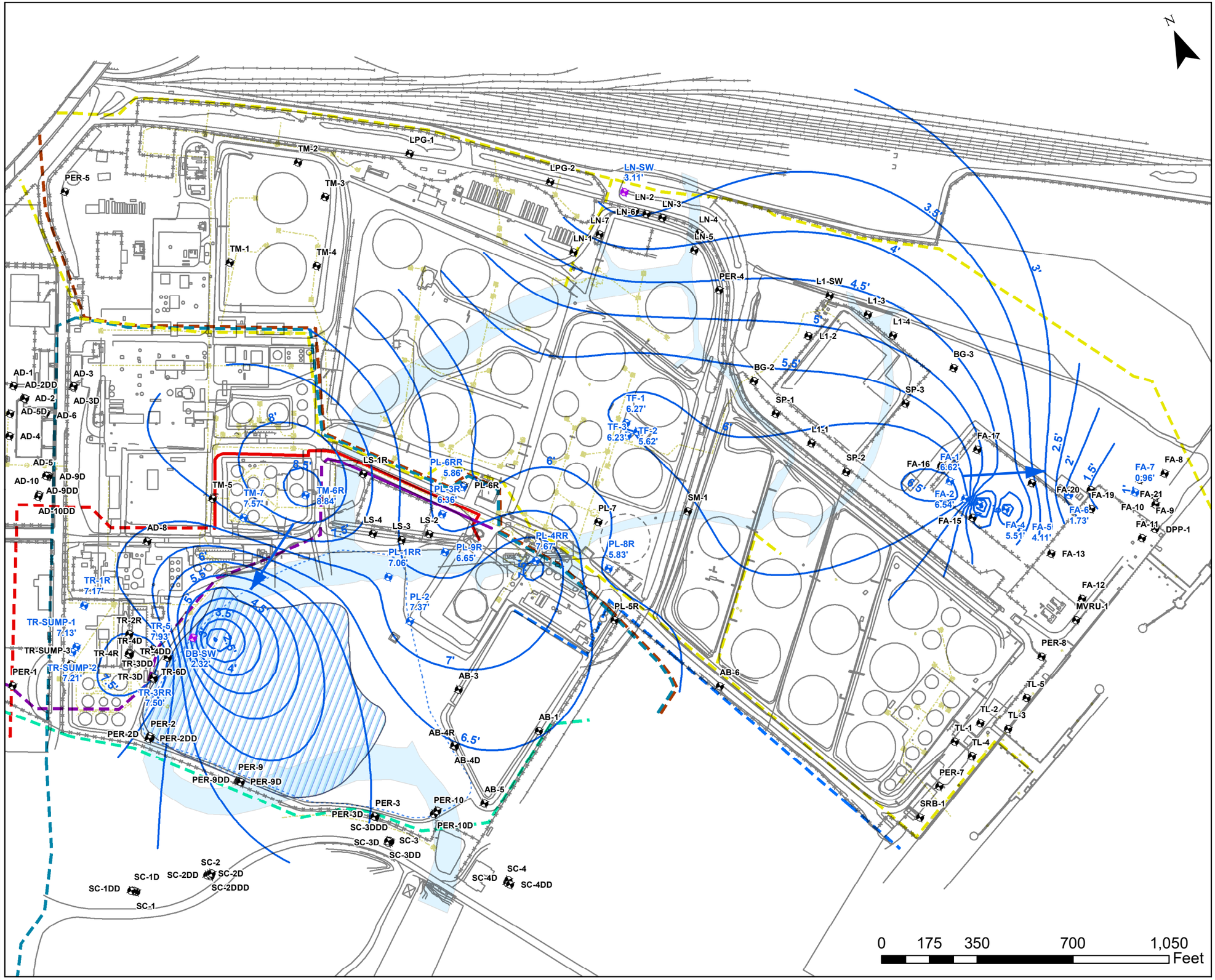


LEGEND

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Smith Creek Channel
- AOC 12 Extent
- Basin Present Extents
- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities

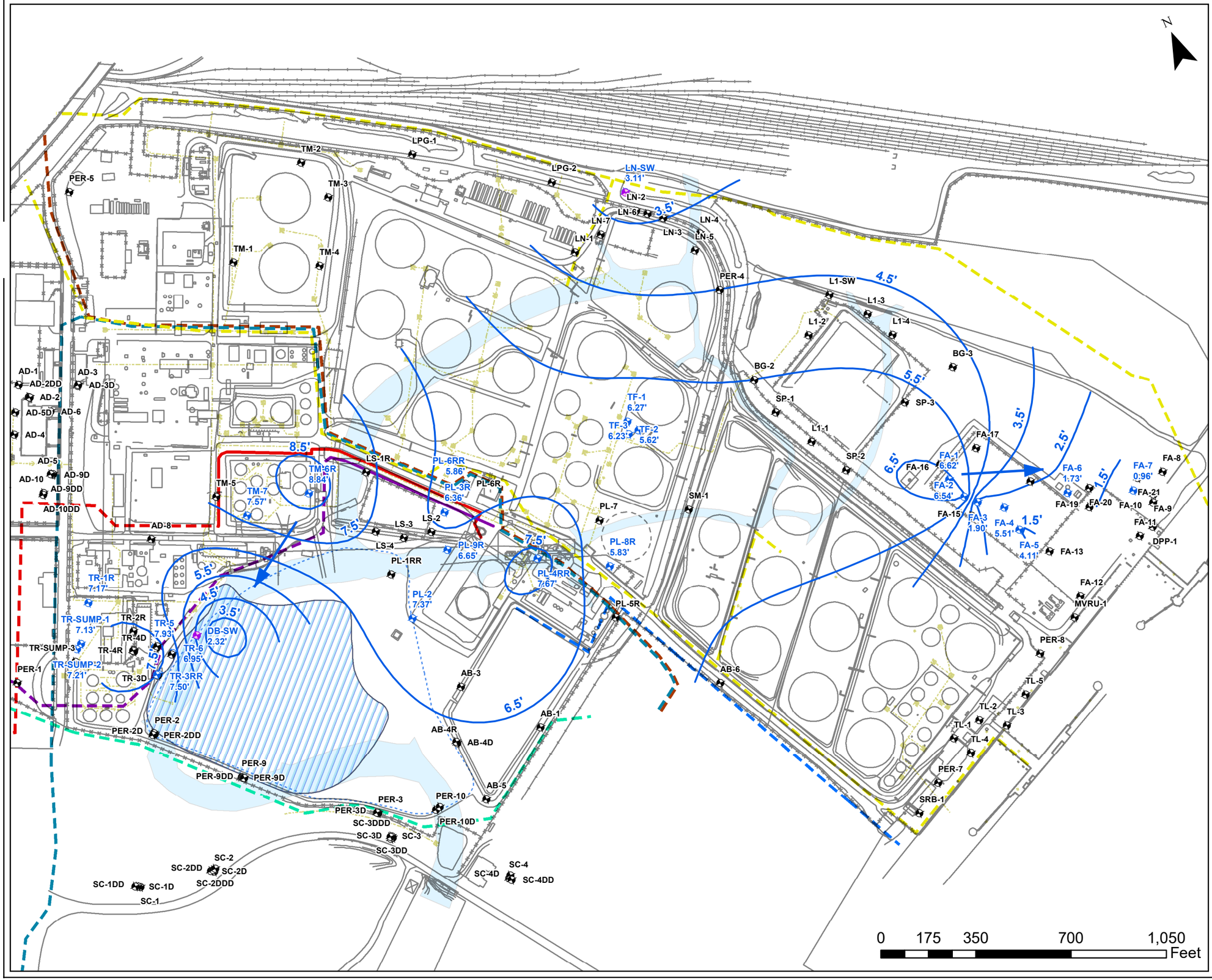
NOTE:
1. All wells gauged on January 24, 2022
2. FA-8 thru FA-21 installed March 2022 and have not yet been surveyed.
3. Only shallow screened (10-20' bgs) wells included.

FIGURE: 6
JANUARY 2022
MONTHLY GAUGING CONTOUR MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	04/21/22
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Smith Creek Channel
- AOC 12 Extent
- Basin Present Extents
- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities

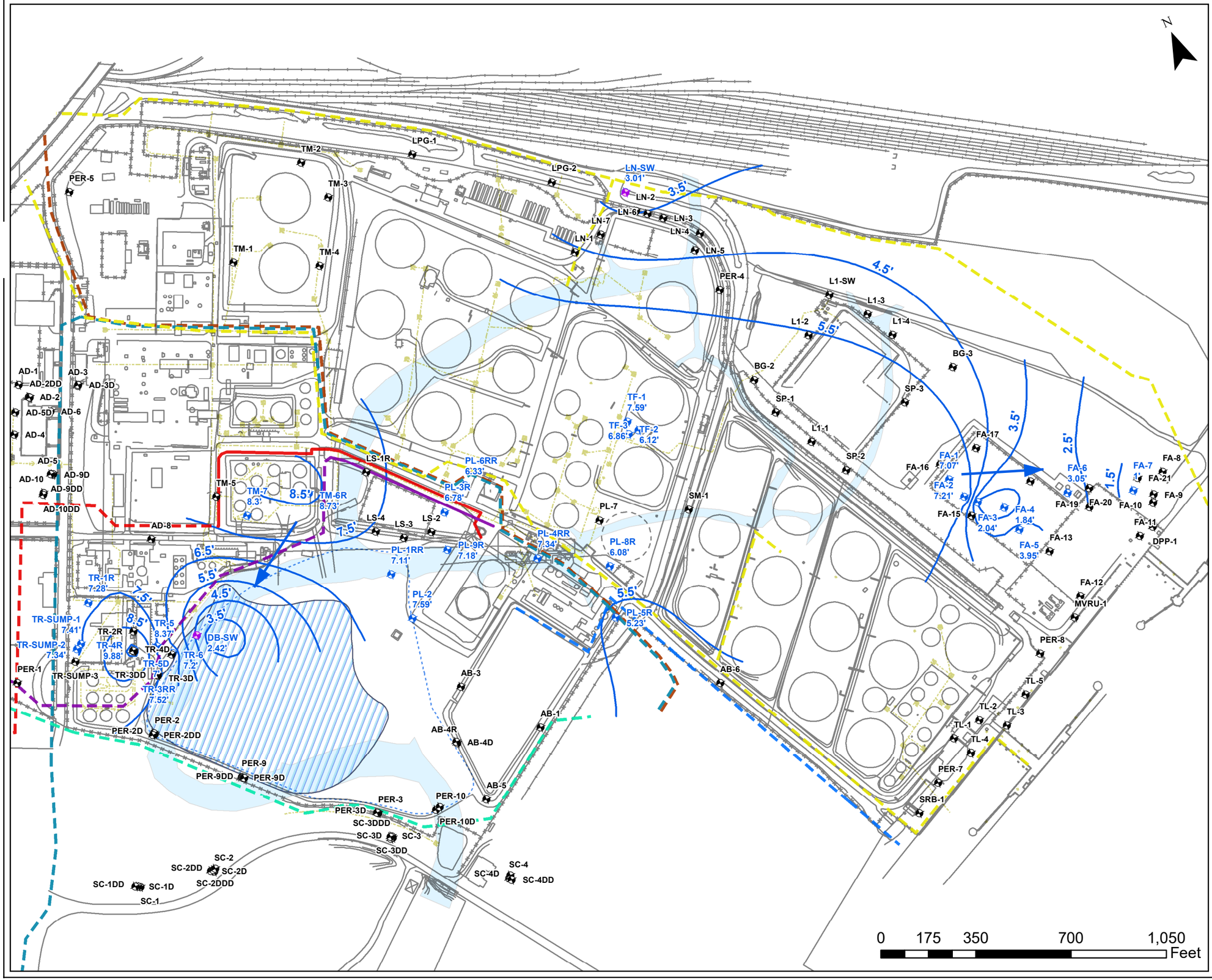
NOTE:
1. All wells gauged on February 24, 2022
2. FA-8 thru FA-21 installed March 2022 and have not yet been surveyed.
3. Only shallow screened (10-20' bgs) wells included.

FIGURE: 7
FEBRUARY 2022
MONTHLY GAUGING CONTOUR MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	04/21/22
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Smith Creek Channel
- AOC 12 Extent
- Basin Present Extents
- 10" Spectra Natural Gas Pipeline
- 12" Spectra Pipeline
- 24" Outfall
- Buckeye Pipeline
- Buckeye Petroleum Pipeline - 608
- Buckeye Petroleum Pipeline - 609
- Colonial Pipeline
- Unknown Pipeline/ Utility
- Williams Pipeline
- Sitewide Utilities

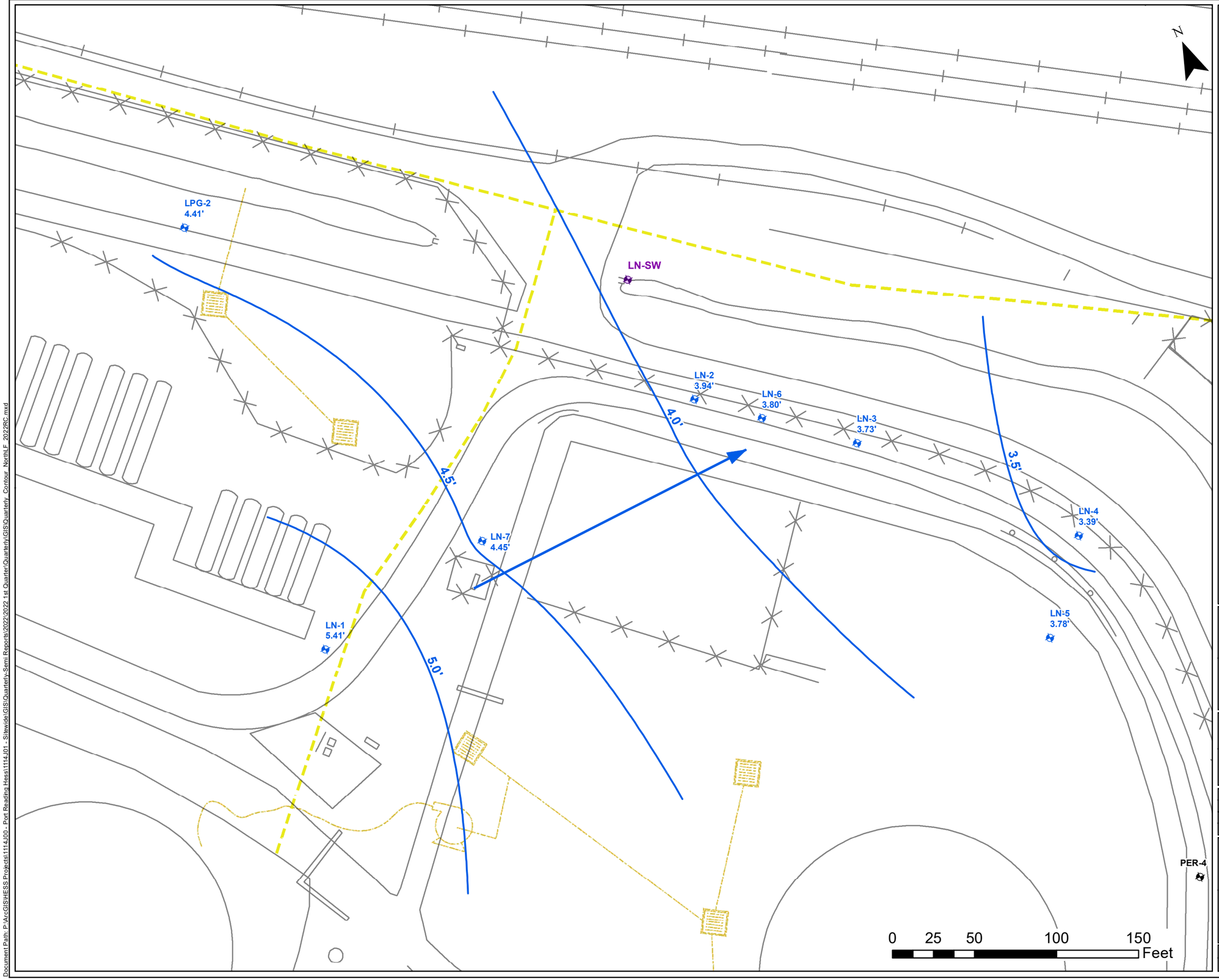
NOTE:
1. All wells gauged on March 31, 2022
2. FA-8 thru FA-21 installed March 2022 and have not yet been surveyed.
3. Only shallow screened (10-20' bgs) wells included.

FIGURE: 8
MARCH 22
MONTHLY GAUGING CONTOUR MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	04/21/22
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Smith Creek Channel
- Underground Utility Lines
- Colonial Pipeline

L1-2 **WELL I.D.**
2.64' **GROUNDWATER ELEVATION (FT BGS)**

NOTE:

1. All wells gauged on January 24, 2022

FIGURE: 9

JANUARY 2022
NORTH LANDFARM
GROUNDWATER CONTOUR MAP

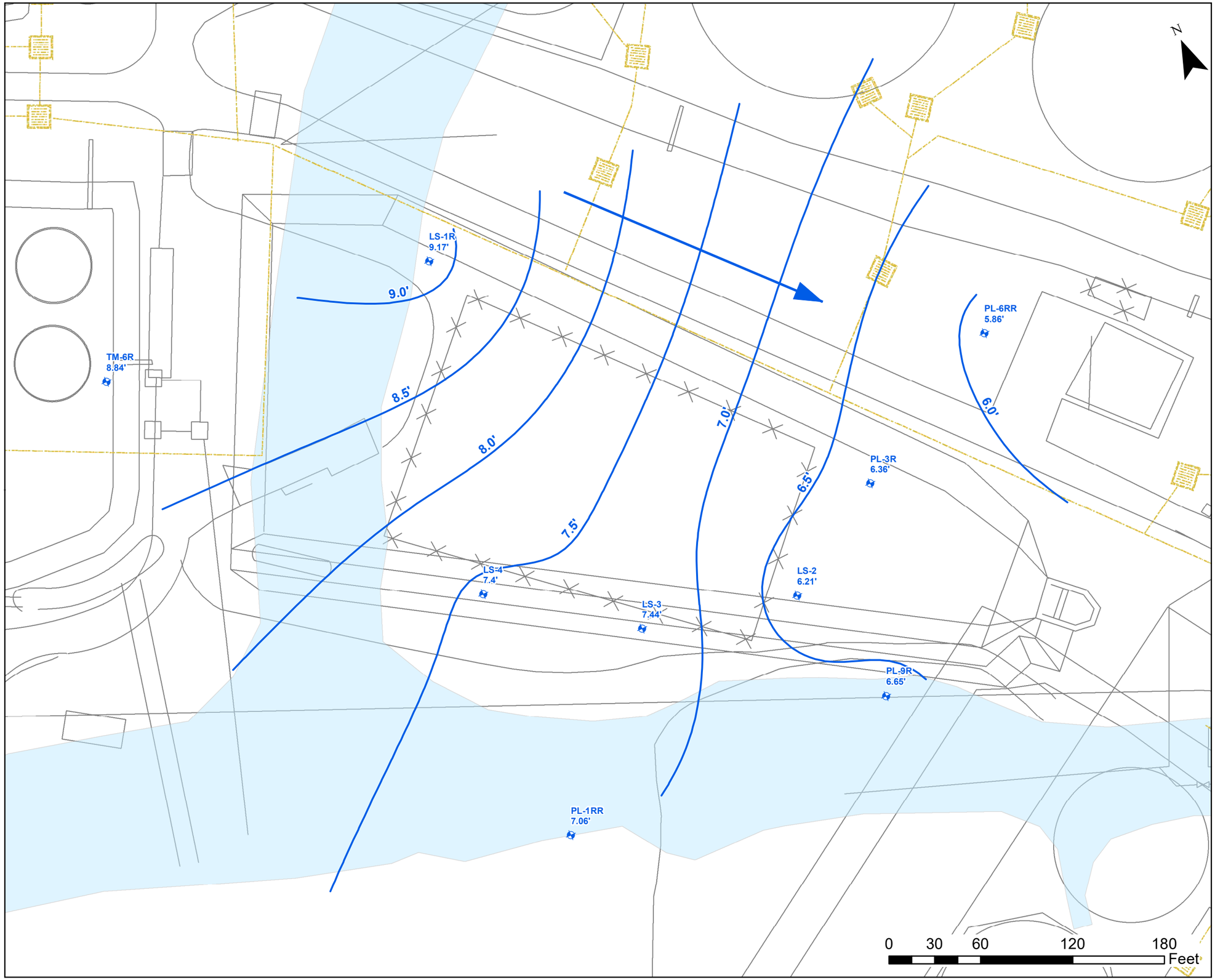
HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	4/22/2022
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

This map was developed using New Jersey Department of Environmental Protection Geographic Information System Digital Data, but this secondary product has not been verified by NJDEP and is not state Authorized.
Source: NAD 1983 (2011) New Jersey State Plane FIPS 2900 US FT.

Document Path: P:\ArcGIS\HESS Projects\1114J00 - Port Reading Hess\1114J01 - Sitewide\GIS\Quarterly-Semi Reports\2022\2022 1st Quarter\Quarterly\GIS\Quarterly_Contour_NorthLF_2022RC.mxd



LEGEND

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Smith Creek Channel
- Underground Utility Lines

L1-2 **WELL I.D.**
2.64' **GROUNDWATER ELEVATION (FT BGS)**

NOTE:

1. All wells gauged on January 24, 2022

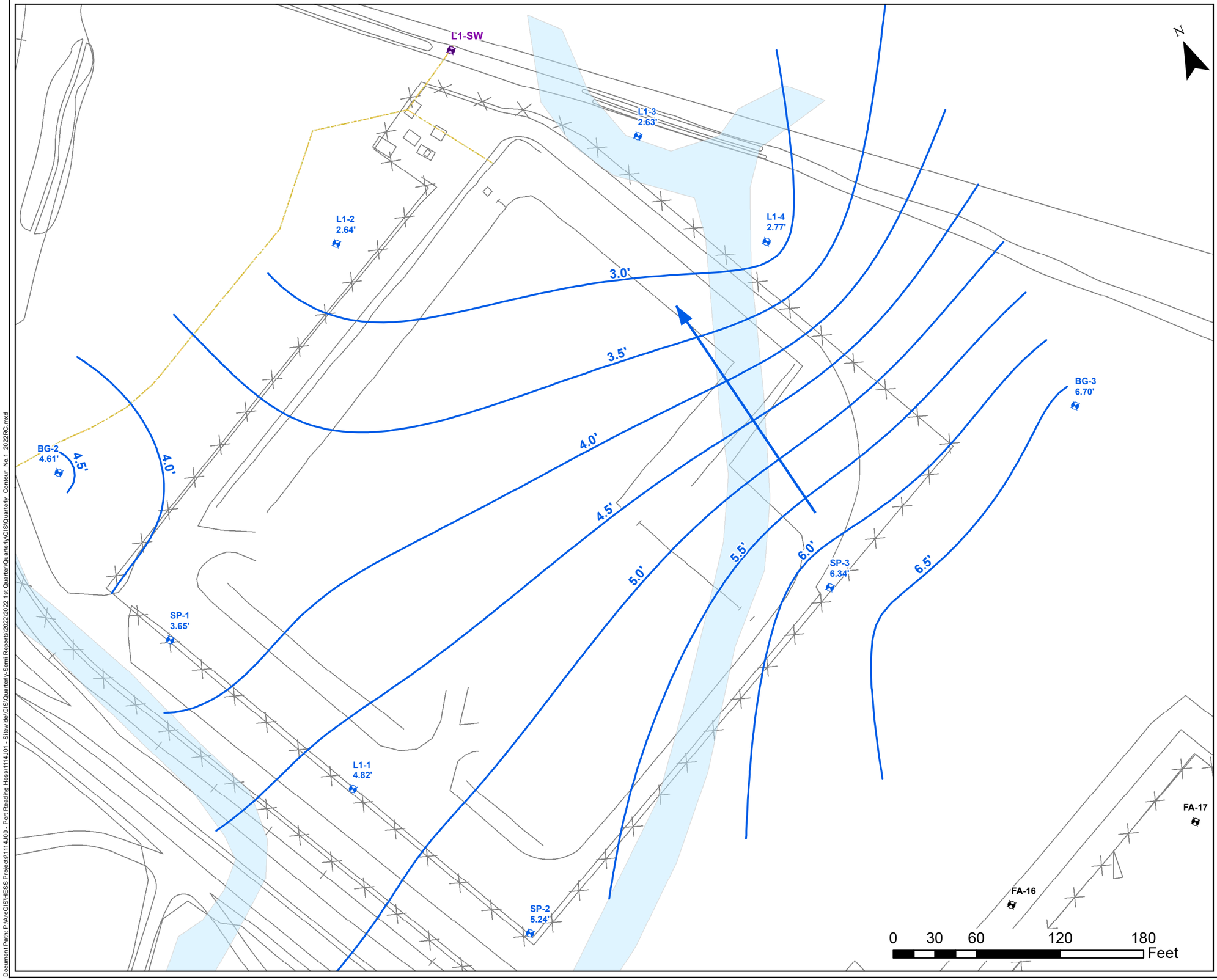
FIGURE: 10

JANUARY 2022
SOUTH LANDFARM
GROUNDWATER CONTOUR MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	4/22/2022
SRP PI#:	006148	**Drawn By:**	NS

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451



LEGEND

- Surface Water Gauge
- Gauged Monitoring Well
- Monitoring Well
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Smith Creek Channel
- Underground Utility Lines

L1-2 **WELL I.D.**
2.64' **GROUNDWATER ELEVATION (FT BGS)**

NOTE:

1. All wells gauged on January 24, 2022

FIGURE: 11

JANUARY 2022
NO. 1 LANDFARM
GROUNDWATER CONTOUR MAP

HESS CORPORATION
FORMER PORT READING COMPLEX
750 CLIFF ROAD
PORT READING, NEW JERSEY

Project #:	1114J01	**Drawn:**	4/22/2022
SRP PI#:	006148	**Drawn By:**	RC

Earth Systems
Environmental Engineering
1625 Highway 71, Belmar, NJ 07719
T. 732.739.6444 | F. 732.739.0451

Tables

Table 1
1st Quarter Monthly Gauging
Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Groundwater Gauging Data									
Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
PL-1RR	1/24/2022		0.30		15.20	7.36	7.06	15.8	Discontinuous Sheen, Sock 1/4 absorbed
	2/3/2022		0.38		15.20	7.36	6.98	22.4	Discontinuous Sheen, Sock replaced
	2/24/2022	-	NM	-	NM	7.36	NM	NM	Inaccessible
	3/17/2022	-	0.75	-	15.00	7.36	6.61	13.2	Discontinuous Sheen, Sock 1/4 absorbed
	3/31/2022	-	0.25	-	14.90	7.36	7.11	2.4	Discontinuous Sheen, Sock 1/4 absorbed
PL-2	1/24/2022	-	2.21	-	17.40	9.58	7.37	0.0	
	2/3/2022		2.17		17.39	9.58	7.41	0.0	
	2/24/2022		2.18		16.86	9.58	7.40	0.0	
	3/17/2022		2.06		17.40	9.58	7.52	0.0	
	3/31/2022	-	1.99	-	17.40	9.58	7.59	0.0	
PL-3R	1/24/2022	-	3.80	-	19.30	10.16	6.36	0.0	
	2/3/2022	-	3.99	-	19.30	10.16	6.17	0.0	
	2/24/2022	-	3.96	-	19.30	10.16	6.20	0.0	
	3/17/2022		4.25		19.10	10.16	5.91	0.0	
	3/31/2022		3.38		19.08	10.16	6.78	0.0	
PL-4RR	1/24/2022		3.89		13.00	11.56	7.67	0.0	
	2/3/2022		4.01		13.00	11.56	7.55	0.0	
	2/24/2022	-	3.65	-	13.00	11.56	7.91	0.0	
	3/17/2022	-	3.67	-	13.00	11.56	7.89	0.0	
	3/31/2022	-	4.22	-	13.00	11.56	7.34	0.0	
PL-5R	1/24/2022	NM	NM	NM	9.80	6.54	NM	NM	Could not access; covered in ice
	2/3/2022	1.00	1.03	0.03	9.80	6.54	5.53	64.3	LNAPL present; Replaced Sock
	2/24/2022	NM	NM	NM	9.80	6.54	NM	NM	Could not access; construction
	3/17/2022	0.5	0.51	0.01	9.80	6.54	NM	12.3	LNAPL present; Replaced Sock
	3/31/2022	1.03	1.05	0.02	9.80	6.54	5.23	22.2	LNAPL present; Replaced Sock
PL-6RR	1/24/2022		1.02		15.10	6.88	5.86	0.0	
	2/3/2022	-	0.89	-	15.10	6.88	5.99	0.0	
	2/24/2022	-	0.80	-	15.20	6.88	6.08	0.0	
	3/17/2022	-	0.90	-	15.20	6.88	5.98	0.0	
	3/31/2022		0.55		15.20	6.88	6.33	0.0	
PL-7	1/24/2022	-	NM	-	5.01	10.75	NM	NM	Damaged Well
	2/3/2022		NM		5.01	10.75	NM	NM	Damaged Well
	2/24/2022		NM		5.01	10.75	NM	NM	Damaged Well
	3/17/2022	-	7.37	-	5.01	10.75	3.38	0.0	replaced with PL-7R
	3/31/2-22	-	7.85	-	5.01	10.75	2.90	0.0	replaced with PL-7R
PL-8R	1/24/2022	-	4.08	-	22.40	9.91	5.83	0.0	
	2/3/2022	-	4.00	-	22.40	9.91	5.91	0.0	
	2/24/2022	-	4.27	-	21.82	9.91	5.64	0.0	
	3/17/2022		4.33		21.75	9.91	5.58	0.0	
	3/31/2022		3.83		21.75	9.91	6.08	0.0	
PL-9R	1/24/2022		2.46		20.47	9.11	6.65	0.0	
	2/3/2022	-	2.44	-	20.45	9.11	6.67	0.0	
	2/24/2022	-	2.30	-	20.50	9.11	6.81	0.0	
	3/17/2022	-	2.17	-	22.48	9.11	6.94	0.0	
	3/31/2022		1.93		22.48	9.11	7.18	0.0	
TF-1	1/24/2022	-	2.33	-	12.10	8.60	6.27	0.0	
	2/3/2022		2.38		12.10	8.60	6.22	0.0	
	2/24/2022		2.30		12.10	8.60	5.88	0.0	
	3/17/2022	-	2.24	-	12.10	8.60	7.41	0.0	
	3/31/2022	-	2.22	-	12.10	8.60	7.59	0.0	
TF-2	1/24/2022	-	1.58		11.60	7.50	5.62	24.5	Discontinuous Sheen, Sock 1/4 saturated, replaced
	2/3/2022	-	1.59		11.60	7.50	5.24	20.1	Discontinuous Sheen, Sock 1/4 saturated, replaced
	2/24/2022	-	1.63		NM	7.50	5.78	2.5	Discontinuous Sheen, Sock 1/4 saturated, replaced
	3/17/2022		1.74		11.60	7.50	6.09	14.2	Discontinuous Sheen, Sock 1/4 saturated, replaced
	3/31/2022	1.46	1.47	0.01	11.60	7.50	6.12	87.2	Discontinuous Sheen, Sock 1/4 saturated, replaced
TF-3	1/24/2022		2.35		11.97	8.58	6.23	0.0	
	2/3/2022		2.42		11.95	8.58	6.16	0.0	
	2/24/2022	-	2.37	-	12.00	8.58	5.99	0.0	
	3/17/2022	-	2.28	-	11.95	8.58	6.30	0.0	
	3/31/2022	-	2.38	-	11.95	8.58	6.86	0.0	
	1/24/2022	-	5.42	-	20.61	14.26	8.84	76.4	Sock 1/4 absorbed
	2/3/2022	-	5.58	-	20.70	14.26	8.68	12.3	Sock 1/4 absorbed

Table 1
1st Quarter Monthly Gauging
Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
TM-6R	2/24/2022		5.27		20.55	14.26	8.99	24.9	Sock 1/4 absorbed
	3/17/2022	-	5.30	-	20.70	14.26	8.96	65.2	Sock 1/4 absorbed
	3/31/2022	-	5.53	-	20.70	14.26	8.73	134.2	Sock 1/4 absorbed
TM-7	1/24/2022	-	7.24	-	21.98	14.81	7.57	3.3	Sock 1/4 absorbed
	2/3/2022	-	7.01	-	21.98	14.81	7.80	5.6	Sock 1/4 absorbed
	2/24/2022	-	7.11	-	21.98	14.81	7.70	10.2	Sock 1/4 absorbed
	3/17/2022		7.08		21.98	14.81	7.73	7.1	Sock 1/4 absorbed
	3/31/2022		7.00		21.98	14.81	8.30	3.4	Sock 1/4 absorbed
TR-1R	1/24/2022		6.51		15.00	13.68	7.17	0.0	
	2/3/2022		6.53		15.00	13.68	7.15	0.0	
	2/24/2022	-	6.34	-	15.00	13.68	7.34	0.0	
	3/17/2022	-	6.28	-	14.98	13.68	7.40	0.0	
	3/31/2022	-	6.4	-	14.98	13.68	7.28	0.0	
TR-2R	1/24/2022	NM	NM	-	20.30	12.47	NM	NM	Could not access; covered in ice
	2/3/2022	NM	NM	-	19.74	12.47	NM	NM	Could not access; underwater
	2/24/2022	NM	NM		NM	12.47	NM	NM	Could not access; underwater
	3/17/2022	NM	NM		19.75	12.47	NM	NM	Could not access; underwater
	3/31/2022	-	2.60	-	19.75	12.47	9.87	0.0	
TR-3RR	1/24/2022		2.13		15.10	9.63	7.50	0.0	
	2/3/2022	-	2.51	-	15.00	9.63	7.12	0.0	
	2/24/2022	-	2.10	-	14.90	9.63	7.53	0.0	
	3/17/2022	-	2.15	-	15.00	9.63	7.48	0.0	
	3/31/2022		2.11		15.00	9.63	7.52	0.0	
TR-3D	1/24/2022		3.56		24.90	9.33	5.77	51.9	
	2/3/2022		3.50		24.91	9.33	5.83	45.6	
	2/24/2022	-	3.52	-	24.89	9.33	5.81	67.8	
	3/17/2022	-	3.34	-	24.90	9.33	5.99	34.8	
	3/31/2022	-	3.31	-	24.90	9.33	6.02	34.2	
TR-3DD	1/24/2022	-	2.13	-	60.00	9.59	7.46	0.0	
	2/3/2022	-	2.05	-	59.20	9.59	7.54	0.0	
	2/24/2022		2.08		60.20	9.59	7.51	0.0	
	3/17/2022		2.11		60.20	9.59	7.48	0.0	
	3/31/2022	-	1.98	-	60.20	9.59	7.61	0.0	
TR-4R	1/24/2022	NM	NM		13.50	12.48	NM	NM	Could not access; covered in ice
	2/3/2022	NM	NM	-	13.61	12.48	NM	NM	Could not access, underwater
	2/24/2022	NM	NM	-	13.61	12.48	NM	NM	Could not access, underwater
	3/17/2022	NM	NM	-	13.61	12.48	NM	NM	Could not access, underwater
	3/31/2022		2.60		13.61	12.48	9.88	1.3	
TR-4D	1/24/2022	NM	NM	-	24.60	12.18	NM	NM	Could not access; covered in ice
	2/3/2022	NM	NM		24.00	12.18	NM	NM	Could not access, underwater
	2/24/2022	NM	NM		24.00	12.18	NM	NM	Could not access, underwater
	3/17/2022	NM	NM	-	24.00	12.18	NM	NM	Could not access, underwater
	3/31/2022	-	2.03	-	24.00	12.18	10.15	2.4	

Table 1
1st Quarter Monthly Gauging
Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
TR-4DD	1/24/2022	NM	NM	-	57.50	12.58	NM	NM	Could not access; covered in ice
	2/3/2022	NM	NM	-	56.70	12.58	NM	NM	Could not access, underwater
	2/24/2022	-	5.81	-	56.70	12.58	6.77	1.4	
	3/17/2022	-	5.92	-	56.70	12.58	6.66	0.0	
	3/31/2022	-	5.86	-	56.70	12.58	6.72	0.0	
TR-5	1/24/2022		4.06		10.64	11.99	7.93	12.3	
	2/3/2022		4.15		10.65	11.99	7.84	3.4	
	2/24/2022		3.98		10.68	11.99	8.01	6.8	
	3/17/2022		3.90		10.68	11.99	8.09	1.2	
	3/31/2022		3.62		10.68	11.99	8.37	0.0	
TR-5D	1/24/2022	-	5.23	-	23.40	12.01	6.78	0.0	
	2/3/2022	-	5.30	-	23.31	12.01	6.71	0.0	
	2/24/2022	-	5.20	-	23.25	12.01	6.81	0.0	
	3/17/2022	-	5.18	-	23.30	12.01	6.83	0.0	
	3/31/2022	-	5.01	-	23.30	12.01	7.00	0.0	
TR-5DD	1/24/2022		5.06		60.00	11.64	6.58	0.0	
	2/3/2022		5.10		59.30	11.64	6.54	0.0	
	2/24/2022		4.99		59.30	11.64	6.65	0.0	
	3/17/2022		5.08		60.04	11.64	6.56	0.0	
	3/31/2022		4.72		60.04	11.64	6.92	0.0	
TR-6	1/24/2022	-	3.83	-	12.60	10.78	6.95	0.0	
	2/3/2022	-	3.75	-	12.60	10.78	7.03	0.0	
	2/24/2022	-	3.79	-	13.00	10.78	6.99	0.0	
	3/17/2022	-	3.64	-	12.60	10.78	7.14	0.0	
	3/31/2022	-	3.58	-	12.60	10.78	7.20	0.0	
TR-6D	1/24/2022		4.39		28.20	10.81	6.42	0.0	
	2/3/2022		3.95		28.20	10.81	6.86	0.0	
	2/24/2022		4.35		29.30	10.81	6.46	0.0	
	3/17/2022		4.25		28.20	10.81	6.56	0.0	
	3/31/2022		4.11		28.20	10.81	6.70	0.0	
TR-Sump-1	1/24/2022	-	5.49	-	7.30	12.62	7.13	0.0	
	2/3/2022	-	5.25	-	7.30	12.62	7.37	0.0	
	2/24/2022	-	5.36	-	7.30	12.62	7.26	0.0	
	3/17/2022	-	5.30	-	7.30	12.62	7.32	0.0	
	3/31/2022	-	5.21	-	7.30	12.62	7.41	0.0	
TR-Sump-2	1/24/2022		5.14		7.20	12.35	7.21	0.0	
	2/3/2022	-	5.01	-	7.20	12.35	7.34	0.0	
	2/24/2022	-	5.08	-	7.20	12.35	7.27	0.0	
	3/17/2022	-	5.12	-	7.20	12.35	7.23	0.0	
	3/31/2022	-	5.01	-	7.20	12.35	7.34	0.0	
Interceptor Trench	1/24/2022		0.75		5.00			NM	Intermittent sheen on top of water. No measurable product.
	2/3/2022		0.80		5.00			NM	Intermittent sheen on top of water. No measurable product.
	2/24/2022		0.75		5.00			NM	Intermittent sheen on top of water. No measurable product.
	3/17/2022		0.80		5.00			NM	Intermittent sheen on top of water. No measurable product.
	3/31/2022		0.75		5.00			NM	Intermittent sheen on top of water. No measurable product.
DB-SW	1/24/2022	-	3.40	-	-	1.08	2.32	NM	
	2/3/2022	-	3.90	-	-	1.08	2.82	NM	
	2/24/2022	-	3.50	-	-	1.08	2.42	NM	
	3/17/2022	-	3.50	-	-	1.08	2.42	NM	
	3/31/2022	-	3.50	-	-	1.08	2.42	NM	
LN-SW	1/24/2022		2.80			-0.31	3.11	NM	
	2/3/2022		2.80			-0.31	3.11	NM	
	2/24/2022		2.70			-0.31	3.01	NM	
	3/17/2022		2.70			-0.31	3.01	NM	
	3/31/2022		2.70			-0.31	3.01	NM	
L1-SW	1/24/2022	-	N/A	-	-	-0.20	-	NM	Could not read
	2/3/2022	-	2.80	-	-	-0.20	-	NM	
	2/24/2022	-	2.70	-	-	-0.20	-	NM	
	3/17/2022	-	2.70	-	-	-0.20	-	NM	
	3/31/2022	-	2.70	-	-	-0.20	-	NM	
SC-SG-1	1/24/2022		NA			-0.98		NM	Could not read - covered in dirt
	2/3/2022		NA			-0.98		NM	Could not read - covered in dirt
	2/24/2022		NA			-0.98		NM	Could not read - covered in dirt

Table 1
1st Quarter Monthly Gauging
Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Well I.D.	Date	Depth to LNAPL (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	DTB from TOC (ft)	TOC Elevation (ft amsl)	Groundwater Elevation (ft amsl)	PID	Notes
SC-SG-1	3/17/2022	-	NA	-	-	-0.98	-	NM	Could not read - covered in dirt
	3/31/2022	-	NA	-	-	-0.98	-	NM	Could not read - covered in dirt
SC-SG-1A	1/24/2022		NA			-1.10		NM	Stream Gauge destroyed
	2/3/2022		NA					NM	Stream Gauge destroyed
	2/24/2022		NA			-1.10		NM	Stream Gauge destroyed
	3/17/2022		NA			-1.10		NM	Stream Gauge destroyed
	3/31/2022		NA			-1.10		NM	Stream Gauge destroyed
SC-SG-2	1/24/2022	-	NA	-	-	-1.64	-	NM	Stream Gauge destroyed
	2/3/2022	-	NA	-	-	-1.64	-	NM	Stream Gauge destroyed
	2/24/2022	-	NA	-	-	-1.64	-	NM	Stream Gauge destroyed
	3/17/2022	-	NA	-	-	-1.64	-	NM	Stream Gauge destroyed
	3/31/2022	-	NA	-	-	-1.64	-	NM	Stream Gauge destroyed
FA-1	1/24/2022		3.05		12.25	9.67	6.62	0.0	
	2/3/2022		2.69		12.05	9.67	6.98	0.0	
	2/24/2022		2.99		12.00	9.67	6.68	0.0	
	3/17/2022		2.73		12.10	9.67	6.94	0.0	
	3/31/2022		2.60		12.10	9.67	7.07	0.0	
FA-2	1/24/2022	-	3.85	-	13.60	10.39	6.54	0.0	
	2/3/2022	-	3.42	-	13.40	10.39	6.97	0.0	
	2/24/2022	-	3.62	-	13.40	10.39	6.77	0.0	
	3/17/2022	-	3.40	-	13.41	10.39	6.99	0.0	
	3/31/2022	-	3.18	-	13.41	10.39	7.21	0.0	
FA-3	1/24/2022		8.94		14.60	10.84	1.90	2.5	Discontinuous Sheen, Sock 1/4 absorbed
	2/3/2022		8.70		14.50	10.84	2.14	1.3	Discontinuous Sheen, Sock 1/4 absorbed
	2/24/2022		8.90		14.50	10.84	1.94	4.5	Discontinuous Sheen, Sock 1/4 absorbed
	3/17/2022		8.73		14.50	10.84	2.11	1.2	Discontinuous Sheen, replaced sock
	3/31/2022	-	8.80	-	14.50	10.84	2.04	0.5	Discontinuous Sheen, Sock 1/4 absorbed
FA-4	1/24/2022	-	5.47	-	14.50	10.98	5.51	0.0	
	2/3/2022	-	9.01	-	14.50	10.98	1.97	0.0	
	2/24/2022		8.78		14.40	10.98	2.20	0.0	
	3/17/2022		9.03		14.97	10.98	1.95	0.0	
	3/31/2022		9.14		14.90	10.98	1.84	0.0	
FA-5	1/24/2022	6.1	6.11	0.01	14.50	10.22	4.11	0.0	Sock 1/2 saturated, replaced
	2/3/2022	9.1	9.11	0.01	14.50	10.22	1.11	0.0	Sock 1/2 saturated, replaced
	2/24/2022	8.76	8.77	0.02	14.50	10.22	1.45	0.0	Sock 1/2 saturated, replaced
	3/17/2022	8.00	8.02	0.02	14.50	10.22	2.20	0.0	Sock 1/2 saturated, replaced
	3/31/2022	6.25	6.27	0.02	14.50	10.22	3.95	0.0	Sock 1/2 saturated, replaced
FA-6	1/24/2022		10.40		18.20	12.13	1.73	0.0	
	2/3/2022		9.14		18.20	12.13	2.99	0.0	
	2/24/2022		9.89		18.10	12.13	2.24	0.0	
	3/17/2022		9.24		18.10	12.13	2.89	0.0	
	3/31/2022		9.08		18.10	12.13	3.05	0.0	
FA-7	1/24/2022		9.18		18.15	10.14	0.96	0.0	
	2/3/2022		9.19		18.00	10.14	0.95	0.0	
	2/24/2022		9.22		18.00	10.14	0.92	0.0	
	3/17/2022		9.12		18.15	10.14	1.02	0.0	
	3/31/2022		9.14		18.15	10.14	1.00	0.0	

Table 2
Quarterly Landfarms Monitoring Well Gauging Data
Hess Corporation - Former Port Reading Complex
750 Cliff Road
Port Reading, Middlesex County, New Jersey

Groundwater Gauging Data						
Well I.D.	**Date**	**Depth to Water**	**DTB from TOC**	**TOC Elevation**	**Water Elevation**	**PID**
LN-SW	1/24/2022	NA	NA	-0.31	NA	NA
LN-1	1/24/2022	4.96	14.86	10.37	5.41	0.0
LN-2	1/24/2022	5.71	12.00	9.65	3.94	0.0
LN-3	1/24/2022	5.19	13.12	8.92	3.73	0.0
LN-4	1/24/2022	7.30	15.20	10.69	3.39	0.0
LN-5	1/24/2022	6.79	17.55	10.57	3.78	0.0
LN-6	1/24/2022	8.35	17.80	12.15	3.80	0.0
LN-7	1/24/2022	8.85	17.90	13.30	4.45	0.0
PER-4	1/24/2022	N/A	16.45	10.30	10.30	0.0
LPG-2	1/24/2022	2.64	9.60	7.05	4.41	0.0
DB-SW	1/24/2022	3.40	NA	-0.11	3.51	NA
LS-1R	1/24/2022	3.08	15.75	12.25	9.17	0.0
LS-2	1/24/2022	3.54	12.00	9.75	6.21	0.0
LS-3	1/24/2022	0.96	12.60	8.40	7.44	0.7
LS-4	1/24/2022	1.88	13.13	9.28	7.40	3.9
TM-6R	1/24/2022	5.42	19.80	14.26	8.84	76.4
PL-1RR	1/24/2022	0.30	14.70	7.36	7.06	15.8
PL-3R	1/24/2022	3.80	18.80	10.16	6.36	0.0
PL-6RR	1/24/2022	1.02	15.00	6.88	5.86	0.0
PL-9R	1/24/2022	2.46	19.90	9.11	6.65	0.0
L1-SW	1/24/2022	NA	NA	-0.20	NA	NA
L1-1	1/24/2022	5.09	NM	9.91	4.82	0.0
L1-2	1/24/2022	6.41	14.90	9.05	2.64	0.0
L1-3	1/24/2022	6.70	10.90	9.33	2.63	0.0
L1-4	1/24/2022	8.08	10.95	10.85	2.77	0.0
BG-2	1/24/2022	2.35	9.20	6.96	4.61	0.0
BG-3	1/24/2022	3.61	10.70	10.31	6.70	0.0
SP-1	1/24/2022	5.30	NM	8.95	3.65	0.0
SP-2	1/24/2022	4.94	NM	10.18	5.24	0.0
SP-3	1/24/2022	2.99	16.90	9.33	6.34	0.0

*Anomalous measurement/not used in contour figur LNAPL - Light non Aqueous Phase Liquids
NA - Not Applicable DTB - Depth to Bottom
All Measurements are in feet TOC - Top of Casing NM - Not Measured

Table 3
Monitoring Well Gauging Table - Historic LNAPL Hess Corporation - Former Port Reading Complex 750 Cliff Road
Port Reading, Middlesex County, New Jersey
First Quarter

First Quarter	2015						2016					
	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA
PL-2	0.02	Sock deployed	0.02	Sock deployed	0.02	Sock deployed	0.01	Sock deployed	Sheen	NA	Sheen	NA
PL-5/PL-5R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PL-8R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	NM	NA	NM	NA	0.03	Sock deployed	0.00	NA	0.00	NA	0.00	NA
TF-2	NM	NA	NM	NA	0.24	Sock deployed	NM	NA	0.10	Sock deployed	0.59	Sock deployed
TM-7	0.01	Sock deployed	0.01	Sock deployed	0.01		0.00	NA	0.00	NA	0.00	NA
TR-2R	0.01	Sock deployed	0.01	Sock deployed	0.01	Sock deployed	0.00	NA	0.00	NA	0.05	Sock deployed
TR-4R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA
TR-4D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA	NM	NA

First Quarter	2017						2018					
	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	Sheen	NA	Sheen	NA	Sheen	NA	0.01	Sock deployed	0.02	NA	Sheen	NA
PL-2	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA
PL-5/PL-5R	NM	NA	NM	NA	0.00	NA	1.63	NA	NM	NA	1.25	Sock deployed
PL-8R	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	N	NA	0.00	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA
TF-1	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-2	0.02	Sock deployed	0.03	Sock deployed	0.01	Sock deployed	0.02	Sock deployed	0.03	Sock deployed	0.01	Sock deployed
TM-7	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.01	Sock deployed
TR-2R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	NM	NA	0.04	NA
TR-4R	0.00	NA	NM	NA	Sheen	NA	NM	NA	NM	NA	NM	NA
TR-4D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-5	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	0.30	NA	0.12	20 Gallons Removed	0.20	NA	0.50	437 Gallons Removed	0.50	NA	Indeterminable	NA

First Quarter	2019						2020					
	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions
FA-3	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
FA-5	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA	NI	NA
PL-1RR	0.00	NA	0.00	NA	Sheen	NA	Sheen	NA	Sheen	NA	Sheen	NA
PL-2	0.00	NA	0.00	NA	Sheen	NA	Sheen	Sock deployed	0.00	NA	0.00	NA
PL-5/PL-5R	0.02	Sock Deployed	0.00	NA	0.00	NA	0.05	Sock deployed	Sheen	Sock deployed	Sheen	Sock deployed
PL-8R	Sheen	NA	Sheen	NA	Sheen	NA	0.00	NA	0.00	NA	Sheen	NA
PL-9R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	0.00	NA	0.00	NA	0.00	NA	Sheen	Sock deployed	0.00	NA	0.00	NA
TF-2	0.01	Sock Deployed	Sheen	NA	0.00	NA	Sheen	Sock deployed	Globules	Sock deployed	Sheen	NA
TM-7	Sheen	NA	0.00	NA	Sheen	NA	0.00	NA	Sheen	NA	Sheen	Sock deployed
TR-2R	0.00	NA	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA
TR-4R	0.00	NA	0.00	NA	0.00	NA	Sheen	NA	0.00	NA	NM	NA
TR-4D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-5	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	0.10	228 Gallons Removed	0.10	NA	0.50	NA	1.40	NA	1.20	307 Gallons Removed from Interceptor Trench	1.00	NA

First Quarter	2021						2022					
	January	RIM Actions	February	RIM Actions	March	RIM Actions	January	RIM Actions	February	RIM Actions	March	RIM Actions
FA-3	0.10	Sock deployed	NM/NM	NA	0.00/0.00	Product Bailer deployed	Sheen	Deployed Sock	Sheen	Deployed Sock	Sheen	Deployed Sock
FA-5	Sheen	Sock deployed	Sheen/Sheen	oduct Bailer deployed/Product Bailer deploy	Sheen/Sheen	Product Bailer deployed/Product Bailer deployed	0.01	Deployed Sock	0.02	Deployed Sock	0.02	Deployed Sock
PL-1RR	Sheen	Sock deployed	NM/NM	NA	Iron Sheen/Iron Sheen	NA	Sheen	Deployed Sock	Sheen	Deployed Sock	Sheen	Deployed Sock
PL-2	0.00	NA	NM/Iron Sheen	NA	Iron Sheen/Iron Sheen	NA	0.00	NA	0.00	NA	0.00	NA
PL-5/PL-5R	Sheen	Sock deployed	NM/NM	NA	Sheen/Sheen	Sock deployed	NM	NA	0.03	Sock deployed	0.01	Sock deployed
PL-8R	0.00	NA	NM/0.00	NA	0.00/0.00	NA	0.00	NA	0.00	NA	Sheen	NA
PL-9R	Iron Sheen	NA	NM/Iron Sheen	NA	0.00/0.00	NA	0.00	NA	0.00	NA	0.00	NA
TF-1	Sheen	Sock deployed	NM/Iron Sheen	NA	Sheen/Sheen/Sheen	Sock deployed	Sheen	Sock deployed	Sheen	NA	Sheen	NA
TF-2	Discontinuous LNAPL	Sock deployed	NM/Discontinuous LNAPL	NA/Sock Depoyled	LNAPL/LNAPL/LNAPL	Sock deployed	Sheen	Sock deployed	Sheen	Sock deployed	Sheen	NA
TM-7	Sheen	Sock deployed	NM/0.00	NA	0.00	NA	0.00	Sock deployed	0.00	Sock deployed	0.00	Sock deployed
TR-2R	0.00	Sock deployed	NM/NM	NA	Sheen/Sheen	NA	NM	NA	NM	NA	NM	NA
TR-4R	0.00	NA	NM/NM	NA	0.00	NA	NM	NA	NM	NA	NM	NA
TR-4D	Sheen	NA	NM/NM	NA	Sheen/Sheen	NA	NM	NA	NM	NA	NM	NA
TR-5	0.00	NA	NM/NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6	0.00	NA	NM/NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
TR-6D	0.00	NA	NM/NM	NA	0.00	NA	0.00	NA	0.00	NA	0.00	NA
Interceptor Trench	Discontinuous LNAPL	NA	NM/NM	NA	Discontinuous LNAPL	68 Gallons Removed from Interceptor Trench	Sheen	NA	Sheen	NA	Sheen	NA